May, 1958 50 cents

# PACIFIC FISHERMAN

Is Pacific Fishing Policy Shifting? p5

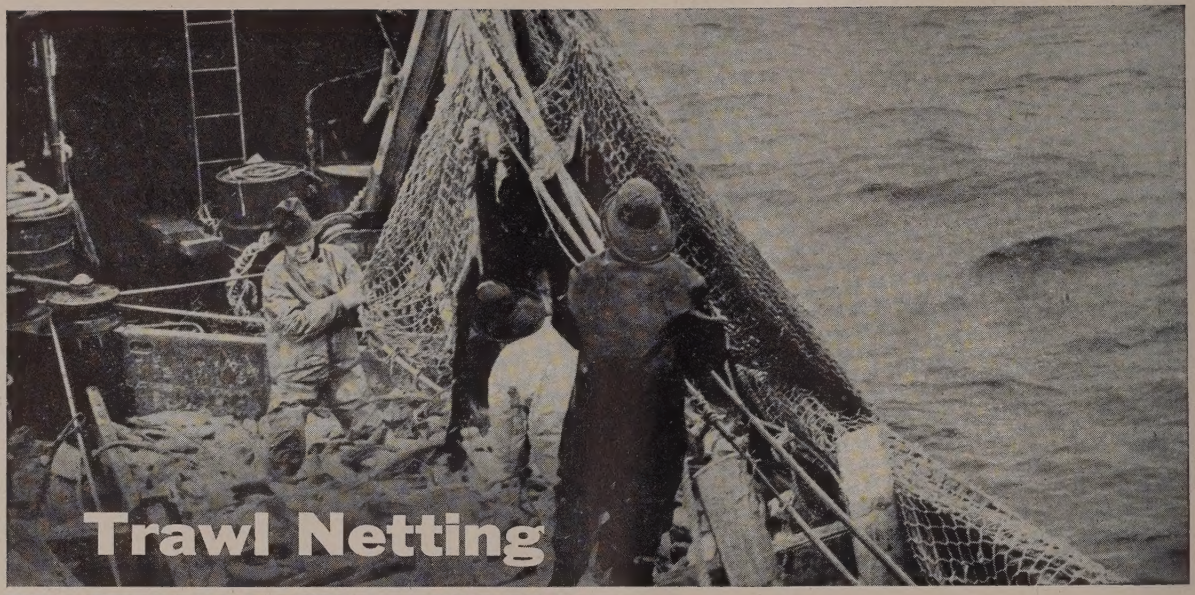
N.F.I. Stands Up to be Counted .... p6

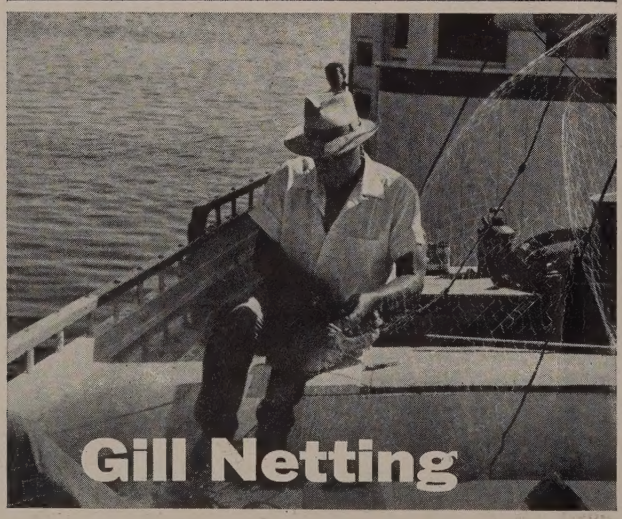
p.20

**Fishing is a world industry; and the Pacific is half the world**

A MILLER FREEMAN PUBLICATION

**FINAL INSPECTION** of Bumble Bee tuna as it emerges from the Pak-Shapers where the cans are filled is entrusted to these women, who correct any imperfections. (See article on Page 12.)



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**Our Fifty-Sixth Year—**

**MAY, 1958**
**Vol. 56 No. 6**


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# Geneva Summary—

## High Seas Limit in Status Quo; Abstention Principle Commended

● Best possible results — from the standpoint of the United States' fisheries — emerged from the nine-weeks-long Geneva Conference on International Law of the Sea.

The conference failed to adopt any of the several proposals on the breadth of the territorial sea, leaving the matter in *status quo* which, so far as the U. S. is concerned, is three miles.

Principle of Abstention, in which the United States and Canada have vital interest, was sanctioned by the conference committee on fisheries problems. This action, while not carried to the plenary level of the conference, was considered as of the greatest significance, and particularly because it passed by the substantial majority of 38 to 17.

● The conference referred the territorial sea and fishing rights problems back to the General Assembly of the United Nations.

As soon as it became evident that there could be no agreement on the width of the territorial sea, Arthur H. Dean, chairman of the American delegation, spelled-out American policy in these words:

"My government stands firmly upon the view that the three-mile limit is fully established as a principle of international law, and that this principal can be changed only by agreement. If we do not agree, our work here will be a nullity and no statement, or proposal or argument, will have any effect whatsoever to extend the breadth of the territorial sea beyond three miles."

Those are strong, plain words and should be effective — providing the governmental determination behind them is as strong as the words themselves.

● United States' compromise proposal on the territorial sea — which would have set a 6-mile limit for territorial waters and an additional 6 miles for fisheries jurisdiction, but with historic fishing rights safeguarded, polled by far the largest favorable vote of any of the four proposals voted upon by the plenary conference—45 for to 33 against, with 7 abstentions.

● The resolution sanctioning the Principle of Abstention said in part that the fisheries committee:

"Believing that the procedure known as Abstention . . . would in special situations serve the general interest of conservation by encouraging states to inaugurate and continue constructive conservation programs through ensuring to such states the product of their efforts; . . . decides to commend abstention procedure to states for utilization of the living recourses of the sea."

● Adoption of this resolution is of the greatest significance to the cause of international conservation. Its achievement can be ascribed to acute analysis, precise timing, understanding and earnest advocacy on the part of the American and Canadian delegations in an arduous conference concerned with the oceanic problems of 86 nations.

## Calif. Protests Dumping Atomic Wastes at Sea

California Department of Fish and Game last month filed an official protest against granting a permit to dump radioactive materials in the ocean.

Up to now, said the Atomic Energy Commission, such permits have been granted without public hearing or public notice.

Seth Gordon, chief of the Fish and Game Department, however, wrote the AEC a strong letter protesting the granting of permission to Isotopes Specialties Co. of Burbank to dump radioactive waste materals in sealed containers in 1000 fathoms. He is concerned, he said, about depositing these materials near or below important fishing banks.

# LESS FIXING, MORE FISHING with

"The Cat D337 Marine Engine is self-contained, requires no adjustments and lets the fisherman spend more time fishing," comments owner Gus Wandtke, Mill Valley, California. And his feelings are based on years of happy and profitable experience with Caterpillar-built equipment. This D337 is his 4th Cat Marine Engine.

"My old engine wasn't worn out," he says, "but I wanted more lugging power." The *Irene* drags its 100′ long net (125′ at open end) up to 390′ deep. And she'll pack a 50-ton payload. After powering-up with the D337, Skipper Wandtke has this to say:

"The added power sure makes the boat handle better—backs up a lot better, too. The tide and wind don't bother us any more. And the additional lugging power is very noticeable—have more power than we need."

Remember, too, the low operating costs of Cat Marine Engines. They give out with peak performance even on low-grade furnace oil, available anywhere you berth. Caterpillar's famed, trouble-free fuel injection system enables the engine to maintain loads for long periods without power sag; idles smoothly and lugs steadily even with the largest

**A Caterpillar D337 Marine Engine provides propulsion power for the fishing boat, *Irene*, operating out of San Francisco. The heavy-duty D337 drives *Irene's* 53" x 41" wheel to 10 knots while light and maintains 2 knots while dragging a huge Western type net with 50-ton payload.**

# ENGINE POWER

## BY CATERPILLAR

# Self-contained CAT Marine Engines

hauls; is free from frequent checks and adjustments. These and many other examples of dependability and economy of operation are proof that self-contained Cat Marine Engines are your number one *low final cost* buy.

Caterpillar Marine service shops are all along the coasts. Why not see your Caterpillar Dealer first chance you get? He'll show you how you can make bigger payloads faster with a latest design Cat Marine Engine.

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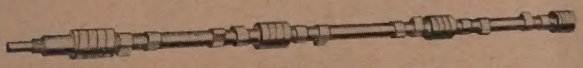
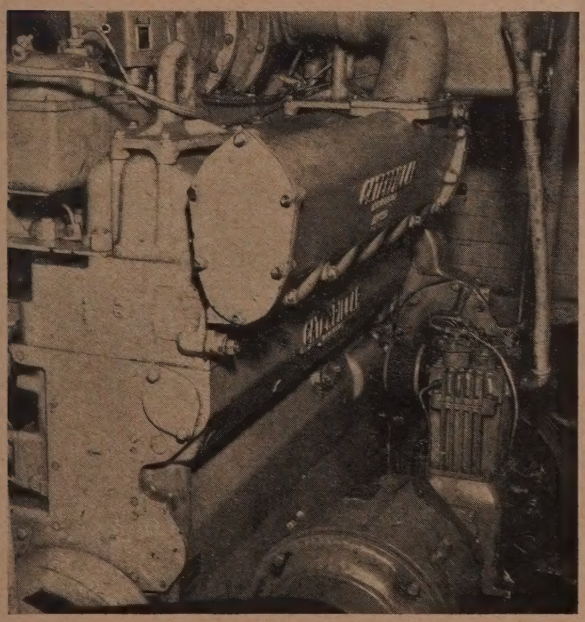


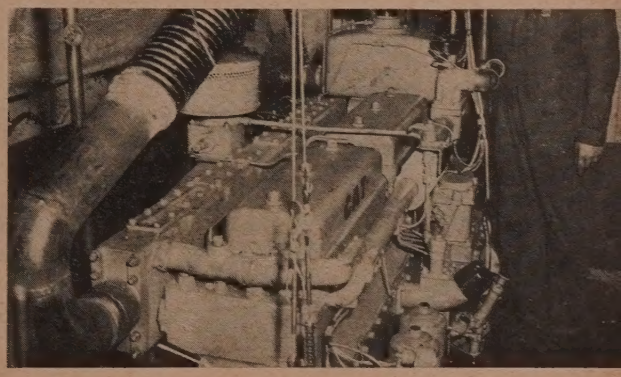
**"Hi-Electro" Hardened Camshaft**

Quality is built into every component of a Caterpillar Diesel Marine Engine. This camshaft, for example, has "Hi-Electro" hardened cams and journals. This makes the outer thickness of the metal more durable and wear-resistant than ordinary camshafts.



This compact Cat D337 Marine Engine is fast gaining a reputation for unparalleled dependability and lugging power among fishermen. Its self-contained, trouble-free construction and 182 continuous HP rating enable fishermen to make maximum hauls and get back to market in profit-making time.

A Caterpillar D342 Marine Engine provides propulsion power for this fishing boat, *Western*, operating out of Seattle, Washington. Owned by George Eliasen, Olaf Bordick and Ed Flones, all of Seattle, boat is 67.6' long with 16.6' beam and 8' draft. "We got a Cat Engine," says partner Eliasen, "after seeing their performance in other boats."



This is a close-up of the Cat D342 Marine Engine with marine reverse and reduction gear. This complete and power-matched unit provides 150 continuous HP for dependable operation however heavy the load. Check with any of the many fishermen who depend on Cat Marine Power to do a job for them. You'll find complete satisfaction and good reason for it.

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AMERICAN CAN COMPANY CANCO

PACIFIC FISHERMAN

May, 1958

# Question for Today:

# Is a Major Shift Shaping In Pacific Fishing Policy?

● Sweeping revision of international policy on high seas fishing in the North Pacific and its related seas may flow from the Soviet-Japanese agreement reached in Moscow April 21.

This prospect was recognized immediately in Ottawa, Washington, D. C., Vancouver, Seattle and San Francisco as well as in Moscow and Tokyo.

In Japan even before the agreement with the USSR was formally signed it was acknowledged in the press and in government circls that Japan's agreement to closure of the Okhotsk to high seas fishing after 1958 might forecast a similar concession with respect to fishing mingled stocks of different continental origins on the high seas west of the present provisional abstention line.

● Japan's concessions in Moscow apparently reflected a definite shift in Japanese policy with respect to sustained yield conservation — a shift at the very highest levels of government.

Prime Minister Kishi April 21 told eight fisheries associations concerned with the North Pacific fisheries: "The Soviet says the resources are declining. If this is true, Japan's industry as well as the Soviet should share in the necessary specific restrictions."

The following day Foreign Minister Fujiyama in officially announcing the signature of the agreement with the Soviet Union said: "The fundamental spirit of the Soviet-Japanese treaty lies in the maintenance of maximum sustained yield and the enlargement of fishery resources. The conclusion of these negotiations required mutual concessions. In view of these points, our government has decided to accept the agreement."

● In view of this expression, opinion in Washington and Ottawa was inclined to believe that Japan might be expected to make concessions in support of the plainly stated principles of sustained yield conservation to which the North Pacific Treaty is dedicated.

(In Tokyo informed observers were inclined to believe that the Fisheries Resource Institute graphs and charts on the Nushagak Red salmon run, published in *Pacific Fisherman* for April, played a decisive part in crystallizing the Japanese government's new policy on conservation.)

● As this issue went to press at the end of April, representatives of Japan, the United States and Canada were beginning discussions in Tokyo on the American request for cessation of high seas fishing where and when salmon of North American origin compose a significant segment of the population.

As early as April 20 a Japanese newspaper, commenting on the Okhotsk closure agreement, said: "A precedent has been established for the tripartite negotiation between Japan, Canada and the United States. Already it has been proposed that a second protected area be established in the middle of the North Pacific ocean in favor of the Red salmon of North American origin. The Japanese would propose to refrain voluntarily from entering this ground in order to protect the resource.

"This conclusion has been decided upon after carefully studying both sides of the matter."

● While agreeing in Moscow to closure of high seas fishing in the Okhotsk after 1958, Japan gained a point in getting one mothership unit with a quota of 6,500 tons into the sea this year; and an increase of 10,000 tons in the overall treaty area quota to a total of 110,000 metric tons. (Japan originally asked for 145,000 tons and the USSR proposed 80,000.)

● Possibilities of major policy shifts were not limited to salmon, for there were some well informed persons who believed it conceivable that the United States and Japan might agree upon equalizing the tariff on all canned tuna, whether packed in oil or in brine, on the theory that this would relieve the economic crisis in the American tuna fishing business.

● Fishing is a world industry and, as *Pacific Fisherman* said long ago: *"The Pacific alone is half the world."*

**THEY DID A GRAND JOB** in planning and staging the San Francisco convention of the National Fisheries Institute. Aldo Casaretto, left, 1957-8 president of NFI, gave much personal effort in helping Albert D. Levy, right, the general convention chairman, with planning and administration. So did T. Neil Taylor, 1957-8 regional vice president, second from the right. Mrs. Lionel Shatz was chairman of the women's committee; and Louis Vitale, second from the left, was in charge of the arrangements committee.

## N. F. I. Stands Up to be Counted:

# FOR Conservation
# FOR Cessation Zone
# AGAINST Subsidies

• Working with manifest seriousness, the National Fisheries Institute at San Francisco in April declared its dedication to "wide use conservation" of the fishery resources of the United States, and the land and waters which are essential to their survival. The step was one of wide significance, but the Institute went further than that.

• N.F.I. demanded that the full influence of the United States be applied to the task of negotiating with Japan to secure a "cessation of fishing by the Japanese high seas salmon fleet at times when and places where salmon of North American origin abound."

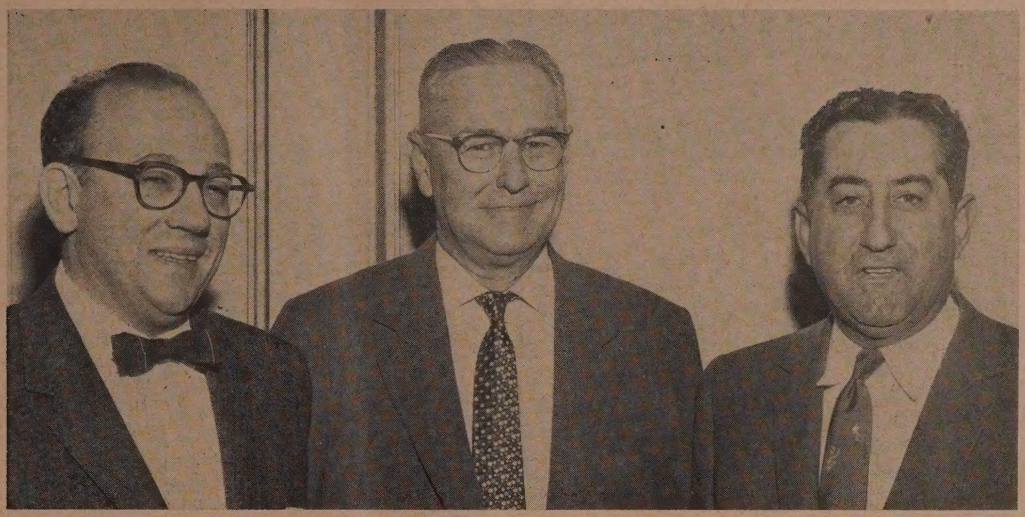
• Sharpest controversy of the convention saw N.F.I. stand firm by its traditional opposition to production subsidies and out-and-out grants; although it did approve national legislation which would compensate Americans, who are barred from importing fishing boats for the construction differential in favor of foreign-built vessels.

• These three actions were outstanding in a convention marked more by studious approach to problems of today than by writing an order and making a fast buck.

The conservation resolution plainly was an attempt to bring the fishing industry of the United States squarely into line with the cause of wise use of natural resources, and thus to stake out for it a firm position in the front rank of the powerful forces dedicated to the wise-use of natural resources.

The action on Japanese high seas fishing on North American stocks was as sharply worded as any utterance yet voiced on this subject, declaring that "the great Red salmon resource of North American origin is in imminent danger of depletion and extinction by reason of net fishing by the Japanese high seas fleet," a form of fishing which the NFI declared "is inimical to the interests of salmon conservation and has been prohibited to Canadian and American fishermen as a conservation measure."

Significantly, no voice was raised against this vigorous action despite



**THEIRS THE DUTY** — New officers of the National Fisheries Institute, elected at San Francisco April 23. In the middle is L. Vernon Drape of New Bedford, Mass., president. On the left, Arthur Frohman of Chicago, secretary; with Virgil Versaggi of Brownsville, Texas, on the right.

the usual opposition of some elements to a firm position on matters affecting operations of other nationals.

● Action of N.F.I. on the question of compensation for boat construction cost differentials, and favoring liberal credit provisions for the replacement of boats and plants, came about only following a series of tense meetings at the policy level of the Institute.

From the first the directors rejected endorsement of the bill designed to provide outright production subsidies for New England fishermen and plant operators; and the report finally presented by Lloyd Turnacliff, chairman of the Committee on Legislation, specifically exempted from approval all incentive payments and outright subsidies. Moreover, the committee's recommendation specifically supported only legislation which would apply to all Americans and all states without sectional preference.

It was significant that the report was rendered by a man from Sacramento, its adoption moved by E. A. Ruthford of Seattle and seconded by T. Neil Taylor of Oakland.

● Other formal actions of the NFI convention included:

Request for a comprehensive Fish and Wildlife Service fundamental research program on the effect of changes in the coastal estuary and sea-fringing areas;

Call for adequate clearances on bridges in coastal areas to permit free passage of fishing vessels;

Supporting amendments proposed to the Fish and Wildlife Coordination Act;

Continuing support of exempt trucking regulations for sea products;

Advocating legislation making control of toxic spraying on a wholesale basis more effective;

Deploring the rising cost of hotel accommodations and services, a trend which threatens to curtail and prevent business and industry conventions and interferes with democratic climate in economic life.

## On One Thing They Were Unanimous

● With as large and diverse an organization as the National Fisheries Institute, unanimous opinion is almost impossible, but there was one subject at the San Francisco convention on which no shadow of disagreement could be discerned. This was that—

"Al Levy and his staff did a swell job."

The meeting was marked by a zest, smoothness and favorable reaction which many attributed to the energy and unstinting, enthusiastic effort developed by Mr. Levy and his principal aides. They were not content to be names on the program and to leave the convention planning to the NFI staff. *This* time the local committee really built the show, and you heard the reaction in that unanimous comment:

"Al Levy and his staff did a swell job."

**SOUTHWESTERN SPARK-PLUGS** — Leaders of Region 4: **Henry Goodrich,** Phoenix broker; **Sam DeLuca,** State Fish Co., San Pedro; **Lionel Shatz,** A. Paladini, Inc., San Francisco, left to right in the front row. Standing, from the left: **E. Stein,** Stein's Fish Co., Pueblo, Colo.; **John G. Martin,** San Francisco; **Robert Sloan,** R. M. Sloan Co., Los Angeles, and **Ray Lemoi,** Rayola Co., Los Angeles. Mr. DeLuca is the new regional vice president; Mr. Shatz and Mr. Sloan are member and alternate on the nominating committee; all others are newly-elected directors.

# Tunamen Fighting

# A Dogged Battle Against Imports on Many Fronts

● Tuna fishermen and boat owners of San Diego and San Pedro last month continued their efforts to get some sort of legislative or executive help from Washington to offset the pressure of imports, mostly from Japan.

But while the tuna men and their wives worked with might and main, and legislators made some encouraging statements, and sent home some hopeful telegrams, there was little or no real progress.

Representative Wilbur Mills, Arkansas Democrat and chairman of the tariff-writing Ways and Means Committee, struck a hopeful note when he said that possibly his committee might vote on the King bill to quota tuna imports and equalize tariff rates, introduced months ago by three representatives from California and one from Washington. Congressman Mills heretofore has opposed specific legislation limiting imports or establishing tariffs on individual commodities, but he admitted that the general Reciprocal Trade Act as now written does nothing for tuna.

He said in an interview that it may not be necessary to hold committee hearings before voting on the import-curb bill, because so much testimony has already been given before the committee when it was considering extension of the Reciprocal Trade Act.

So it may be possible to get at least a committee vote—an important step in the progress of legislation through Congress—on relief for tuna fishermen, within a matter of weeks.

### Anti-Dumping Safeguard Sought

● On another front, Dr. W. M. Chapman, research director of the American Tunaboat Association, San Diego, appeared before the Senate Finance Committee with a plea for amendments to the "anti-dumping" act of 1921 to forestall dumping of imported frozen tuna.

This happened in 1956-57, Dr. Chapman told the senators. In a separate statement, Dr. Chapman said that when an investigation was called for, the U. S. Customs Bureau, after a 4½-month investigation, found no cause for action.

If the act as at present worded allows any such interpretation, Dr. Chapman testified, it should be reexamined.

### Wives Pitch In

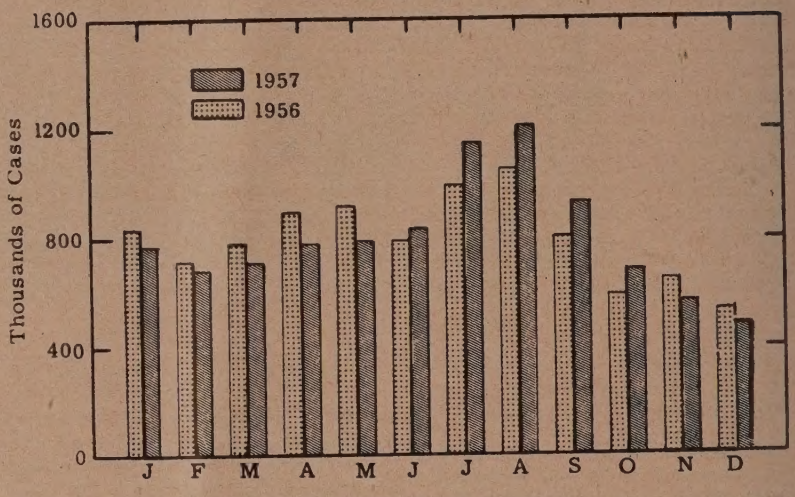
● The Tuna Fishermen's Wives Emergency Committee last month joined forces with the ladies of the San Diego Harbor Grange in a continuing campaign to keep the subject of tuna before Congress by every possible means, until some action is taken.

As the Congressmen returned to their desks after the Easter vacation, a delegation of two women and six men from San Diego were waiting for them with demands to vote out the import quota bills now before the House Ways and Means Committee. On the delegation were:

Mrs. George Zeluff, chairman of the Tuna Fishermen's Wives; Mrs. A. L. Barrett, master of the San Diego Harbor Grange; William E. Self, president, M. D. Stewart, manager, and A. L. Barrett, secretary of the Five Star Fish & Cold Storage Co., an Albacore fishermen's co-operative; Lester Ballinger, secretary-treasurer of the Fishermen's and Cannery Workers' Union AFL-CIO; Earl Mansell, Engineers' Union; and Dr. Chapman.

The ladies have helped to maintain a representative of the tuna industry in Washington constantly, on a rotating basis, keeping tab on progress

CALIFORNIA CANNED TUNA PACK




## Southern California Receipts

| | Albacore | Bluefin | Skipjack | Yellowfin | Bonito, etc. | Total |
|---|---|---|---|---|---|---|
| San Pedro | 3,130 | 463 | 9,304 | 20,372 | 268 | 33,537 |
| San Diego | 236 | | 6,478 | 6,644 | 30 | 13,388 |
| **Total 1958 through April 12** | **3,366** | **463** | **15,782** | **27,016** | **298** | **46,925** |
| Total 1957 | 6,980 | 104 | 14,926 | 26,138 | 42 | 48,190 |
| Total 1956 | 3,609 | 81 | 18,242 | 31,194 | 2 | 53,128 |

## California Imports of Frozen Tuna

Cumulative data in tons for 1958 through April 5, and for other years to the nearest comparable data. Data from U. S. Market News Service.

| | Albacore | Skipjack | Yellowfin | Unclassified | Total |
|---|---|---|---|---|---|
| San Francisco | 782 | 20 | 1,703 | | 2,505 |
| San Pedro | 3,005 | 990 | 6,733 | 82 | 10,810 |
| San Diego | 235 | 135 | 976 | | 1,346 |
| **Total to April 5** | **4,022** | **1,145** | **9,412** | **82** | **14,661** |
| 1957 | 7,814 | 3,206 | 6,692 | | 17,712 |
| 1956 | 4,069 | 2,123 | 8,082 | 81 | 14,355 |

and keeping the subject fresh in the minds of Congressmen.

### Canners' Challenge

● The California Fish Canners Association is making the bold statement that the whole principle of the Reciprocal Trade Act is unconstitutional, on the ground that it gives the Executive the power to set import duties and taxes. According to the California Fish Canners Association, Congress has no constitutional right to delegate this authority to the Executive, and the association has initiated a test of the act before Customs Court, as a first step toward getting a ruling from the U. S. Supreme Court.

Charles R. Carry, executive director of the canners' group, said the reciprocal trade program had been "most injurious to the American canner and American fisherman", and that "our experience with reciprocal trade agreement legislation has been all bad".

### Where's the Report?

● The Senate Finance Committee, which passes on tariff legislation, some months ago asked the U. S. Tariff Commission for a report on the effect of Japanese tuna imports on the U. S. industry.

The report was supposed to have been returned February 1, 1958; but after giving the commission an extension of deadline to March 1, Senator Byrd, Finance Committee chairman, last month extended the date to May.

Actually, there's no rush from the Senators' viewpoint, since all tariff and import-control legislation must originate in the House; and since the House has taken no action on tuna import legislation before it, the Senate won't be able to make any practical use of the report until the House has taken action on tuna import legislation before it, the Senate won't be able to make any practical use of the report until the House passes the legislation and sends it to the upper chamber.

Another tuna report, prepared by the U. S. Fish & Wildlife Service remained unpublished though completed, despite the pleas of Congressmen Bob Wilson, San Diego Republican, and James B. Utt, Anaheim Republican.

# Sardine Outlook Brighter

● "Things look brighter for the California sardine resource than they have in years."

That isn't a crashing statement if it comes from a layman, but when a top-flight, carefully conservative scientist makes it right out in meeting, and backs it up with facts which average fish people can understand then it develops a lot of weight.

Who said it? Dr. Albert L. Tester, chief of the branch of fishery biology, U. S. Fish and Wildlife Service. Where? At the meeting of the American Fishery Advisory Committee held during the National Fisheries Institute convention in San Francisco.

Amplifying his statement on sardines, Dr. Tester said that the 1957 sardine spawning had been the first good one in many years so far as the northerly limits of spawning were concerned. This successful spawning may be attributed in part to the fact that in 1957 Pacific surface temperatures were at a 26-year high.

Again, the percentage of young sardines in the current catch of bait fish is many times higher than it has been in any of the past 10 years.

Among the influences which science is studying in its efforts to understand the history of the sardine resource is that of the wind and the currents it creates. The period of sardine scarcity has been found to coincide remarkably with a 10-year cycle of unusually high wind averages off the coast in the sardines' normal range.

To the advisory committee Dr. Tester summed-up the primary aims of biological research in these simple words:

"We seek (1) means of maintaining the fishery resource at maximum levels, to (2) be able to predict abundance, and (3) to understand population trends."

---

The San Pedro Chamber of Commerce passed a resolution urging Congress to pass remedial legislation; and Ford Cleere, a Haynes Foundation student at UCLA, published a report showing that San Pedro fishermen's average income dropped 50% in six years, from $6917 in 1950 to $3100 in 1956, while the number of fishermen working out of Los Angeles Harbor has decreased from 1900 in 1950 to 1300 in 1956. Frozen imports, Mr. Cleere said, were the main cause.

### N.W. Canners Want Loins

● In the Pacific Northwest an altogether different phase of the tuna import battle is being fought. Small packers to the number of perhaps half-a-dozen are importuning their congressmen and the Federal Trade Commission to initiate action which would revive imports of frozen tuna loins from Japan. These canners claim that they have been forced to suspend operations because, with their limited capacity and hand-filling operations they geared to a supply of frozen loins, they have been unable to compete since the Japanese authorities ordered suspension of shipments of frozen loins to the United States.

Complaints to the Federal Trade Commission are said to allege that this action by the Japanese was influenced by larger American operators.

## Split Union Wins Right As Bargaining Agent

The tangled affairs of San Pedro's Seine and Line Fishermen's Union were still in a snafu as this magazine went to press, with two factions still battling each other in the courts and at the polling places.

The long-awaited union election, held by court order, took place last month but each side warned members that if the other won, the result would be contested.

Meanwhile, the union, divided as it is, re-won its right to act as bargaining agent with seven tuna canners in the Los Angeles Harbor area.

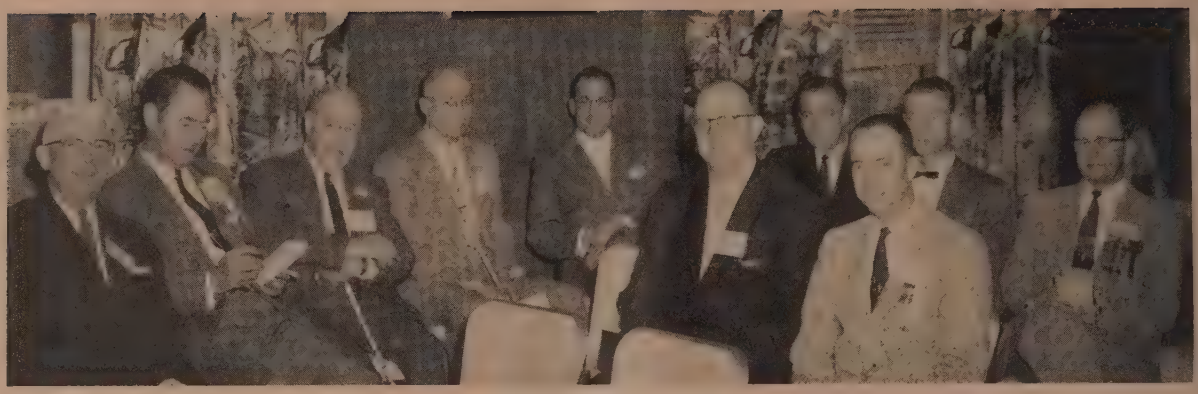
The canners are Van Camp, Star Kist, Coast Fisheries, Pan Pacific Fisheries, California Marine Curing & Packing Co., South Coast Fisheries and Franco Italian Packing Co.

The Seine and Line union won its bargaining rights against Local 33 of the International Longshoremen's and Warehousemen's Union. The local agreed with the National Labor Relations Board to refrain from pressuring the canners not to buy from independent fishing vessel owners. Local 33 also agreed not to try to influence cannery workers against handling the catch of independent fishermen.

## Southern California Domestic Tuna Deliveries

Cumulative totals for 1958 through April 12, in tons, as reported by U.S. Market News Service

| | Albacore | Bluefin | Skipjack | Yellowfin | Bonito, etc. | Total |
|---|---|---|---|---|---|---|
| Clippers and Albacore Fleet | 4 | .. | 14,099 | 13,150 | 31 | 27,280 |
| Purse Seiners | .. | 381 | 556 | 5,401 | 267 | 6,605 |
| **Total 1958 through April 12** | **4** | **381** | **14,655** | **18,551** | **298** | **33,885** |
| Total 1957 | 221 | 104 | 11,132 | 19,518 | 66 | 30,820 |
| Total 1956 | 180 | 1 | 16,330 | 26,388 | .. | 42,719 |



**CAUGHT AT THE CAUCUS,** these Pacific Northwesters were picking the directors of NFI Region V. First on the left, **William C. Eardley,** retiring regional vice president, and the "man-of-the-year," honored by the N.F.I. plaque for distinguished contributing to American fisheries. Reading to the right from Mr. Eardley: **James Pinkerton,** Ketchikan Cold Storage; **Charles R. Pollock,** Pacific Coast Oyster Growers Association; **Frank Erickson,** Aleutian Cold Storage Co.; **Jack Alhadeff,** Whiz Fish Products Co.; **E. A. Ruthford,** San Juan Fishing & Packing Co.; **W. C. Eardley Jr.,** Eardley Fisheries Co.; **Robert A. Erkins,** Snake River Trout Co.; **Ed Johnson,** Whitney & Co.; **M. A. Bornstein,** Bornstein Seafoods.

## Neil Taylor Warns:

# "No Trickling of Funds"

● "Trickling" of Saltonstall-Kennedy funds into regular functions which should be financed by annual appropriations was warned against by T. Neil Taylor, vice president of National Fisheries Institute's Region 4. as he opened the annual public meeting of the American Fisheries Adsvisory Committee, held during the NFI convention in San Francisco.

Mr. Taylor minced no words in calling upon the advisory committee to "use its best influence to see to it that the moneys available, some 4 or 5 millions annually, are used for the purpose intended and not allowed to trickle into regular functions of the Bureau of Commercial Fisheries, which should be financed by annual appropriations. The whole purpose of the Saltonstall-Kennedy Act was to provide supplemental funds to enable the federal government to extend its regular activities. Unfortunately, experience has demonstrated that the Bureau of the Budget and some members of Congressional appropriation committees use the availability of special funds to whittle down regular appropriations. If the Advisory Committee will alert the industry when danger threatens the use of Saltonstall-Kennedy funds, we will join the committee in a fight to protect them."

Comprehensive presentation of a number of aspects of the Saltonstall-Kennedy investigations developed many interesting details, some of which are dealt with more comprehensively in this report.

### Increased Industry Interest In Research is Manifest

● To the thoughtful observer at the N.F.I. convention there was plainly apparent a notable increase in industry interest in research—

Research in biology;
Research in technology;
Research in merchandising;
Research in consumer motivation;
Research to devise standards which would stimulate consumer use of fish.

The convention was marked by definite pressure applied from federal and institute sources to encourage establishment of voluntary standards of quality, identity, fill of container and other factors.

That this rather evident pressure was accepted by the membership without adverse reaction was indicated by favorable votes calling on the Bureau of Commercial Fisheries to initiate studies looking toward the development of standards for frozen steaks, giving priority to halibut.

### Vernon Drape Chosen President of Institute

● L. Vernon Drape of New Bedford, Mass., was chosen president of N.F.I., succeeding Aldo Casaretto of Los Angeles. Mr. Drape is the head of Ell Vee Dee, Inc., perhaps the largest specialist in scallops in the entire country. His election as president came at the end of a term as treasurer of the Institute.

Secretary for 1958-9 will be Arthur Frohman of L. H. Frohman & Sons, Chicago brokers who represent the New England Fish Co. in a large territory centering at Chicago. Treasurer is to be Virgil Versaggi of the Versaggi Shrimp Co., Brownsville, Texas.

Regional vice presidents include: Harry A. Trimm Jr., General Foods, New York; Carl Pass, Meletio Seafood Co., St. Louis; Sam J. DeLuca, State Fish Co., San Pedro; Harvey H. Bundy, Gorton's of Gloucester; Palmer Olson, New England Fish Co., Seattle; Harry I. McGinnis, Empire Menhaden Co., New Orleans.

Pacific Southwest Region 4 directors elected were: John Martin, Los Angeles; Tom Lazio, Eureka; George V. Castagnola, Santa Barbara; Nick Vitalich, San Diego; Henry Goodrich, Phoenix; A. H. Mendonca, San Francisco; Ray Lemoi, Los Angeles; Emauel Stein, Pueblo.

In the Pacific Northwest Region 5 new directors are: Meyer Bornstein, Bellingham; E. A. Ruthford, R. A. Littlefield, Frank Erickson, Norman Weitkamp, Seattle; Robert Erkins. Buhl, Idaho; James Pinkerton, Ketchikan; Mel Carlson, Portland.

● The next convention will be held at the Commodore Hotel, New York City; followed in 1960 by Miami Beach; 1961, Washington, D. C.; 1962, New Orleans; 1963, Boston.

### Eardley is Honored

● William C. Eardley of the Eardley Fisheries Co., Seattle, received the N.F.I. plaque awarded annually for distinguished public service to the benefit of the fishing industry. The award carries with it honorary life membership in the Institute, and is recognized as its highest tribute.

### Geneva, the Vital Topic In Suspense at NFI

● Geneva 80-odd-nation conference on the International Law of the Sea coincided in its closing days with the NFI convention in San Francisco, where hundreds of fish people from all corners of the country recognized this as the most vital topic before American fisheries today—but scarcely discussed it officially because no one knew what was going to happen.

Despite the virtual suspense in which the subject was maintained, pending the final action, there was no question that whatever came out of Geneva would have tremendous impact upon the fish business for generations.

Out of lobby conversations these quotes might be significant:

"Geneva is *paramount.* What else compares in importance to our business?"

"Whadda we care about Geneva? What we want is more fish to sell."

"Geneva may leave you with no fish to sell."

"We shoulda got out of this Geneva deal a year ago. Who got us into it?" (It had its beginnings about eight years ago.)

"Geneva and this North Pacific deal are making a *Democrat* outa th' *boss.*"

### National Promotion Notable

● Acceptance of a national fish and seafood promotion program as an integral part of the fish business seemed manifest among the hundreds at the National Fisheries Institute convention in San Francisco.

Striking presentation of the progress of fish merchandising under the promotion of recent years featured the first day of the session; while plans for the forthcoming fall Fish Parade and National Fish and Seafood Week were developed at meetings of the Fish Parade and Public Relations Committees.

● Pacific Northwesters scored heavily in the packaged frozen fish judging contest at the convention, Miss Neva L. Karrick of the BCF Technological Laboratory, Seattle, took second place among the woman entrants, while James F. Kindred of Astoria was the second-ranking man.

**QUALITY CONTROL** was a key theme at the N.F.I. convention, and Mr. and Mrs. Lloyd Turnacliff here are considering a sample of halibut steaks at the annual product inspection. Mr. Turnacliff was chairman of the reception committee for the convention.

● Pacific Coast scientists contributed the entire program of the Industrial Products Division at the NFI convention.

Miss Neva Karrick, assistant chief, Pacific technological research, Bureau of Commercial Fisheries, discussed "Highlights of Fish Oil Research"; Dr. C. R. Grau of the University of California reported on amino acids in fish meals; Dr. Laurence Kinsell of the Institute for Metabolic Research, Oakland, discussed essential fatty acids; and W. E. Barraclough of the Fisheries Biological Station, Nanaimo, B. C., reported on the British Columbia mid-water trawl.

● Improved possibility of a cooperative international problem for the promotion of North Atlantic fillets was expressed at the NFI convention by members of the North Atlantic Fillet Council who conferred there with American, Canadian and Norwegian representation.

# ASDA Firm for Free Trade

● Spelling-out the purpose of the American Seafood Distributors Association at its annual meeting, held in San Francisco during the National Fisheries Institute convention, Walter R. Meier Jr. of Milwaukee, president, put the purpose of the organization in these words:

"More and more fishery imports will be required to meet the ever-growing needs of our population, let alone provide additional supplies required by any increase in per capita consumption. . . .

"There is always going to be a conflict of interest between liberal traders and protectionists, and from the fishing industry standpoint ASDA will continue in its efforts to seek the unrestricted flow of fishery products in international trade."

Beside Mr. Meier, who was re-elected president, new officers of the ASDA are:

Vice president, *M. S. Cowen,* M. S. Cowen Co., San Francisco; secretary, *Eugene Liebel,* Eastern Commission Co., New York; treasurer, *Robert J. Gruber,* Fishery Products, Inc., Cleveland;

Directors: *Richard F. Dietrich,* Robbins, Inc., Chicago; *Robert P. Fletcher Jr.,* Booth Fisheries Corporation, Chicago; *George T. Harrison,* Tilghman Packing Co., Maryland; *Vernon A. Haslund,* Boston Commission Co., Boston; *Richard Kulze,* South African Rock Lobster Service Corporation, New York; *Arthur D. Mullen,* E. Frank Hopkins Co., Philadelphia; *C. M. Reinke,* Reinke & Amende, Inc., Los Angeles; *Gilbert J. Schwartz,* Tri-State Sales Co., Baltimore; *Robert L. Stix,* Robert L. Stix, Inc., New York; *Thomas C. Thomas,* T. C. Thomas Co., Wilkes-Barre; *Nick Varcasia,* Gulf Fish & Oyster Co., Dallas; *J. W. Willis,* Crest Importing Co., San Diego; *Robert B. Young,* Wilbur-Ellis Co., New York; *Lou Ashby,* F. W. Bryce, Inc., Detroit.

Miss Elizabeth Guhring continues as executive secretary.

## Oystermen Unite to Ask Revision of Standards

● Oystermen from Pacific, Atlantic and Gulf Coasts caucused at the N.F.I. convention in San Francisco and for the first time took all-areas action designed to cope with a common problem.

Specifically, they voted to ask the U. S. Food and Drug Administration to reopen its Standards of Identity of canned oysters with the possibility of deciding upon amendments which would more effectively identify imported canned oysters.

The action was prompted by a number of cases of what the industry considers abuses; notably labeling Japanese canned oysters "Pacific Oysters" —the contention being that under historic usage this term applies only to oysters grown to maturity in North American Pacific coastal waters.

**FOR THREE-SCORE YEARS AND TEN** the Columbia River Packers Association, Inc., has been canning fish at this location at Astoria, Ore. The plant, constantly expanded and continuously modernized, provides the largest industrial payroll in the community which was the first American foothold on the Pacific.

# "Bumble Bee" Tuna—

## The Story of a Business Of 3-Score Years and 10

● At the mouth of the Columbia River, where Americans first established themselves upon the Pacific, is a tuna packing enterprise notable for the year-round contribution it makes to the economy of the community, and for the degree to which quality control is a factor in its operating practices.

The plant is the Elmore Cannery of the Columbia River Packers Association, Inc., at Astoria, Oregon.

In these pages *Pacific Fisherman* reports in particular upon these two phases of the "Bumble Bee" tuna canning: (a) how it maintains almost continuous canning in an area where tuna fishing is highly seasonal and only occasionally actually productive; (b) how quality control is an integral, essential element of the enterprise, the projection into operating practice of the modern merchandising which characterizes the company's selling and has made its brand a ranking name among fish products.

● Columbia River Packers Association, Inc., was formed at Astoria in 1887, only 23 years after salmon canning began, as a merger of eight packing firms, of which S. Elmore was one, with a cannery on the site from which the present central cannery of the company's Columbia River operations takes it's name.

At that time, and for 50 years thereafter, salmon was the company's prime business.

However in 1937, three years after runs of Albacore occasionally occurring off the Oregon and Washington coasts had been found to have commercial importance, the C. R. P. A. entered the tuna canning business actively. Prior to that time it had engaged in buying and shipping Pacific Northwest Albacore to California canneries.

The tuna cannery was constructed immediately to the east of the great salmon cannery, and so arranged that they could share certain facilities, notably the retorts and canned goods warehouses.

As deliveries of tuna frequently arrived in greater volume than any economically profitable cannery could process properly, large freezing and cold storage facilities were built in connection with the company's Hanthorn cold storage plant east of the

# Tuna Comes from Three Sources

combined canneries.

This was at a time when the steady rise of Albacore fishing off Oregon and Washington led to the construction of numerous tuna canneries, particularly on the Columbia River, Grays Harbor and Puget Sound. Of them all, the Elmore plant of Columbia River Packers Association, Inc., was by far the largest.

The rising tide of North Coast Albacore fishing crested in 1944, when fishing was phenomenal. From there occurrence of Albacore shifted and availability of the species to fishing vessels based in the Pacific Northwest declined and became highly variable. The season, when it *was* a season, was short—August, September, over by mid-October. The fleet tried hard, but the run which was flush from 1936 to 1946 has not since returned to North Coast waters in volume; although the fleet of Albacore boats operating from Southern California for the past few years has found the best fishing in history.

The Albacore, the "Longfin" tuna from which all "White meat" tuna must be packed, is a notorious shifter. In 1925 he disappeared from California waters for almost 20 years.

● Drastic decline of the Albacore fishery was a heavy blow to Oregon and Washington operators, fishermen and cannery workers. Some plants failed; others withdrew from tuna canning entirely; some continue to can a little tuna, when it came at all.

Management of the Columbia River Packers Association, Inc., took stock —of its investment, its responsibility, and the alternatives with which the company was faced.

Here was a great tuna cannery, with its auxiliary cold storage. Should they be closed and liquidated? If so, what of the people who worked there? What of the reduced catch of Albacore? Where would the fishermen be able to sell it?

**DIRECT DELIVERY**
Pacific Northwest Albacore fishing boats discharge locally-caught tuna at the CRPA plant, only 10 miles from open sea.

**COASTAL STATIONS**
afford discharge points for the Pacific Northwest fleet during the short tuna season. Fish delivered at these points convenient to the fishing areas are iced thus in insulated trucks and rushed to Astoria overnight for canning next day.

**FROZEN IMPORTS**
Frozen tuna from Japan is unloaded at Astoria for delivery to the cold storage plant. Supply thus maintained enables the CRPA cannery to operate on a year-round basis, despite seasonal character of the local fishery.

# Two Key-to-Quality Steps in

**FEEDING**
the Pak-Shaper, the remarkable machine which puts the clear loins of tuna in the cans for fancy pack. On the feeder, her care and experience rests much of the responsibility for appearance of the product reaching the consumer.

Was there an alternative? Was there another source of tuna from which fish could be secured in sufficient volume to maintain operation when local deliveries were not available? After all, the United States fleet had never been able to catch all the Albacore the American market wanted.

By the time the low point had been reached in the Oregon - Washington Albacore fishery the war was over and Japan was again producing Albacore, as well as the "light meat" tuna species. The United States was the principal market for canned tuna in the whole world. Obviously, Japan again would be selling tuna to the American consumer. If it came canned, only the Japanese profited. If it came frozen, to be canned here during periods when local deliveries were insufficient to maintain cannery operations, then the plant workers had a year-round payroll and the American fishermen had a home market in the short season when the variable Oregon-Washington Albacore run was available to them.

This was the course adopted by the Columbia River Packers Association, Inc., the course which has kept its big tuna cannery active the year-round, save for a few weeks' overhaul period during the early salmon season; the course that provides the largest payroll in Astoria and its vicinity, which would be a bleak area without it.

### Not Without Criticism

● It would be unrealistic not to acknowledge that the course of the Columbia River Packers Association, Inc., in using imported tuna to supplement domestic supplies, and to permit it to use its plant and maintain a consistent payroll while building an increasingly growing business, has not subjected the company to criticism from American fishermen. This criticism, which is shared by all American packers using imported raw material, argues that economic problems of the United States fleet require tuna imports be limited in quantity by quota and their cost raised by applying import tariff to frozen raw materials.

To this the Columbia River Packers Association through its president, T. F. Sandoz, responds with these points:

1. Imports of Albacore are necessary to meet the requirements of the American market. "For the past five years domestic production of Albacore has been less than half the amount the United States market consumed."

2. "If we must import tuna, it is preferable to import frozen round tuna and process it here."

3. "Imports of frozen round tuna are landed in this country at costs at least equal to, and generally higher than, prices paid for comparable items landed by American fishermen." This is possible economically because the imported tuna generally yield larger recovery in cases per ton of raw material. This is due to the larger average size of the individual fish, which gives larger recovery; and because, having been bled upon catching, and being painstaking handled, there is less waste in preparing them for the can.

4. Tuna canned from imported raw material is distributed at prices and under practice which keep it from being a market-disturbing factor.

5. Furthermore, actual experience has proven that this policy has enabled the company to maintain a market for American fishermen's catches of Albacore tuna taken from central California north off the coasts of Oregon and Washington, which in the past two years amounted to a sizable production.

6. It is also the company's experience to date and prediction for the future that the growth which has taken place in the consumption of canned tuna in this country since World War II will continue and that the American market will require the total production of both the American and Japanese tuna fleets. The problem at the present time is to establish the market at a price level which will give all factors a fair return.

With the company's increasing need for additional tuna, in 1956 it acquired through merger Hawaiian Tuna Packers, Ltd. of Honolulu, which is supplied by the extensive tuna fishing operation adjacent to the Hawaiian Islands.

### Quality Control— An Essential Element

● Meticulous, systematic control of quality in its "Bumble Bee" tuna canning is an essential element in the

# Modern Tuna Canning Practice

**INSPECTION**
of the prepared loins as they pass to the Pak-Shaper keeps workmanship at the high level required to meet the exacting requirements of **Bumble Bee** specifications. In canning, conscientious scrutiny is the price of quality.

company's management doctrine and operating practice.

Quality control begins with inspection at the time of purchase of the fish itself, whether it be in Japan or in the company's various receiving stations along the West Coast. The company also maintains a purchasing office and staff in Tokyo, where careful inspection and selection is made of all lots of tuna offered for purchase.

Deliveries to American stations, and the Columbia River Packers Association, Inc., buys Albacore as far south as San Francisco Bay, are packed in crushed ice immediately upon purchase and are run to Astoria by the company's own refrigerated trucks.

Significant steps in the quality control program after the tuna have been received at Astoria include:

*Storage temperature* — Frozen fish is maintained consistently at -17° F.

*Thawing*—Fish are thawed in running water from the Astoria's municipal system.

*Controlled cooling* — Pre-cooked tuna are cooled in a refrigerated room with air circulated by fans and controlled humidity, permitting precise timing of the cooling operation and its meshing with cannery operation, regardless of external temperature and relative humidity. Condition is protected with bactericidal ultra-violet lights.

*Two-step preparation*—Heads, tails, fins and skin are removed from precooked tuna at the head of the preparation lines. With this gross preparation done in advance, the women preparing the loins are assisted in the speed and quality of their work and the cleanliness and attractiveness of pack and plant as well are sustained.

*Quality through care*—Work studies show the women feeding the Pak-Shapers which fill the cans are important factors in pack quality; that the task is an exacting one; and that workmanship is improved by opportunity to examine the results of effort. Accordingly, each of the six filling machines in the C. R. P. A. tuna cannery has three women who are qualified as Pak-Shaper feeders; and they rotate their duties every two hours. Thus one is feeding the Pak-Shaper; one is checking the filled cans at the patching table; and one is carrying out such quality control steps as taking average weight of contents of unoiled cans and working in the laboratory where finished cans are continually under test to determine conformity with U. S. standards for canned tuna.

*Machines unhurried* — Operating speed of the Pak-Shapers, and of all subsequent operations in the Elmore Cannery production lines, is regulated to give optimum results. Thus the filling machines are operated at a speed less than their maximum capacity, with improved efficiency, to conform to the company's standards.

*Processing in coolers* — Operating practice at Elmore requires that all cans be processed in cooler trays after the manner standard in salmon canneries, thus insuring that all surfaces of the fish are protected by oil during retorting and subsequent washing.

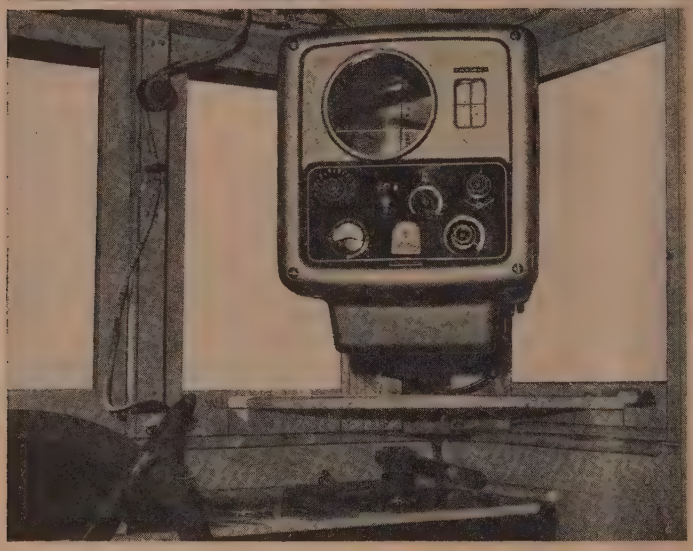
*Uniform vacuum* — To control vacuum in the cans, and to insure its uniformity, all cans are closed on vacuum seamers, six Continentals and one American.

*Cans double-washed* — Emerging from the vacuum machines, the cans are given a light washing; followed by another high-detergent washing of the processed cans as soon as they are drawn from the retorts.

*White uniforms* — To maintain uniformity and the most sanitary conditions, and as a service to their employees, the company provides and launders regularly white uniforms and fresh cotton gloves for its workers. The laundering of these gloves and garments is done in a modern, efficient laundry operated by the company at the plant.

*Staff inspection* — Perhaps no step in quality control is more important than the every-morning staff inspection. Each morning a committee of three, composed of key executives in production, research and sales, makes a critical examination of samples drawn from the pack of the previous day. This is in addition to the continuous inspection that goes on in the plant throughout the day, checking seams, pressing can contents, taking vacuum, and making visual and organoleptic examinations of the pack.

WORLD LEADER IN MARINE RADIO EQUIPMENT



# "We've more than doubled our hauls with the RCA Fish Finder!"

Says Capt. **Charles Stiansen,** skipper of Dragger "Priscilla Ann"

Operating out of the busy South Shore, Long Island area, Capt. Stiansen credits his Radiomarine Fish Finder with an amazing increase in the daily catch.

The Captain says . . . "With the RCA Fish Finder there's no more guesswork—we know when fish are present, the contents of nets and when to haul in. There's less chance of snagging nets. And the Fish Finder operates as a depth indicator while under way."

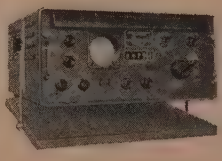
And he adds . . . **"Our only regret is that we did not install it sooner!"**

If you're interested in bigger hauls . . . if you want to safeguard valuable gear . . . if you want versatility and reliable operation, see the RCA Electronic Fish Finder and Depth Sounder (Model LAZ-16) at your earliest convenience. It's the modern, electronic way to faster, safer, more profitable fishing operations!

## OTHER RCA "WORKHORSES" FOR THE FISHING FLEETS

**NEW RCA CR-107**
Radar—operates with equal efficiency at 20 yards or 32 miles. A space saving, low power, lightweight design . . . economy plus for the busy fishing fleets.

**RCA MODEL ET-8060**
—new, versatile 20-channel radiotelephone. Designed for remote push-button channel selection. Frequency range 2 to 9 mc or 1.650 to 9 mc. FCC type accepted.



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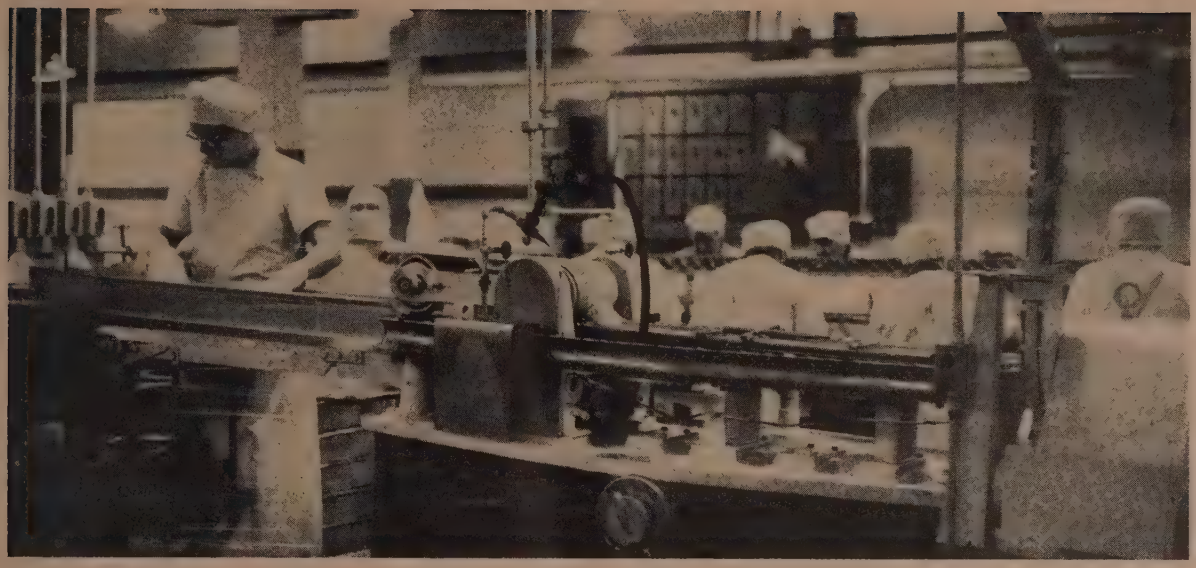

**Carruthers Pak-Shaper** is the machine which changed tuna canning by providing a sanitary, effective means of filling cans, rapidly, uniformly, giving precise weight and attractive appearance in the finished product. The Pak-Shaper was invented and developed at Astoria by **E. H. Carruthers,** and was first used commercially in the Elmore cannery, where this latest model is one of five Carruthers machines.

## Some Features of "Bumble Bee" Cannery's Flow Sheet

● Features in the flow of tuna through the Columbia River Packers Association, Inc., cannery have a number of aspects of interest. In general the flowsheet follows standard tuna cannery practice, but there are distinctions designed to meet the particular requirements of the local situation and company policies and standards.

*Cold Storage* — A few days before tuna stored in a room are to be drawn upon for canning Leland Canessa, superintendent, allows the temperature to rise from -17° to about 0°. Frozen tuna are stacked in metal baskets which are handled by electric fork trucks powered with Exide storage batteries. Gasoline and oil cannot be tolerated in the cold rooms with the fish; nor motor fumes in the compartments. The fish-filled baskets are loaded onto cannery tender or trucks for transport to the cannery, which draws about 75 tons of fish per day.

**Checking the Machine**—A weighing machine in the foreground checks each can for full weight, and the woman gives the final visual inspection for character of fill before the can is closed. Thus the workmanship of the remarkable Pak-Shaper filling machine is constantly scrutinized.

*Thawing, Pre-cooking, Cooling* — Metal fish baskets are raised and turned by hoist and hydraulic dumper until the fish slide onto a conveyor belt from which they are discharged into 14 thaw tanks where they thaw in running fresh water from the city mains. The tanks have slatted false bottoms which can be raised by hoist, floating the thawed fish to the front of the tank, where they are pulled out onto a moving conveyor belt which carries them to the butchers. As the viscera are removed the fish are thoroughly washed and put into baskets in racks for pre-cooking, which is handled in six low-pressure cookers.

Pre-cooked tuna in racks are rolled to the refrigerated cooling room, four Frick fan and cooler units chilling the circulated air. Relative humidity is also controlled.

*Preparation of loins*—Mention has been made of the fact that the tuna go through a preliminary preparation process which removes primary waste such as heads, tails, fins and skins. The semi-prepared fish are then carried by conveyor to the women who prepare the loins. All work surfaces and utensils are stainless steel.

Waste removed in the final loin preparation goes through slots in the tables to the return run of the tuna conveyor belt. Finished loins are placed on a top belt bound for the Pak-Shapers. Material for blended pack goes to the return run of this belt, which delivers it to women who grade the material and blend it in proper proportions for the company's "Tuxedo" pack. Finely divided all-white meat is placed in stainless steel pans for grating and facing in that form.

*Filling*—The C. R. P. A. tuna cannery has seven lines: 4 half-pound Pak-Shaper fancy-pack lines; 1 half-pound Pak-Former chunk-style line; 1 quarter-pound hand-filled line; 1

**Attention** is vital where quality is a prime consideration. The Elmore cannery personnel is marked by a high order of intelligence and competence born of year-round employment and long experience in packing fish to high standards.

half-pound grated line with a Food Machinery filler.

Before the loins are fed into the Pak-Shapers they pass the scrutiny of two inspectors, plus the feeder. As previously mentioned, the speed-setting on the filling machines is conservative. Every can is checked on an automatic weighing machine, and the patching table gives meticulous attention to correcting any faults of fill as well as of weight.

*Oiling and Closing* — Where the packing medium includes vegetable broth, 10 cc. of the broth is metered first into each can. This is followed by a metered amount of oil. The can then has a 20-second conveyor run to the second oil-metering pump, from which it passes at once to the vacuum closing machine. As the oil is precisely metered to weighed cans, it is not necessary to decant them to established headspace. This also reduces the washing problem.

*Retorting* — From the cooler-loading machines where the salmon-style cooler trays are filled, fork trucks carry the retort cars to the battery of nine single-ended retorts fitted with Taylor and Foxboro instruments. After process cooking the cans are washed a second time while carefully conveyed flat in the coolers through a tunnel wash-and-rinser.

*Pack Examination* — There is no end to cutting and examination of the product in the "Bumble Bee" operation. In the technological laboratory in the plant technicians constantly press and weigh drained cans to provide the control required under the new Federal Tuna Standards, using a laboratory-type hydraulic press made by Luthi Machinery & Engineering Co., Gardena, Calif., for this specialized testing.

Moreover, cans are drawn periodically from all points in the canning operation for examination. For example, they may be taken from filled cases in the stacks and examined to detect rough-handling in the cooler unloader, labelling machine or caser.

*Hawaiian Operations* — The same approach to quality control is maintained through the operations of the Honolulu plant. One of the prime considerations in the company's acquisition of this operation was the outstanding fresh quality of the tuna produced in the waters immediately adjacent to the Islands.

*Personnel* — One of the essentials that contribute to the efficiency and high uniform quality of product in both the Astoria and Honolulu plants is the exceptional skill and pride in workmanship of the cannery personnel. Many of the employees are closely identified with the fishery, being wives, daughters and sons of fishermen.

### The "Bumble Bee" Story

● This, then, is the Story of "Bumble Bee" Tuna, how it came into being when an exotic fish, the long-finned, white-meated, wandering Albacore appeared of a sudden in northern waters and then, after a few years of abundance, raced away again save for a few weeks of uncertain fishing in the early fall.

It is the story also of how a great tuna cannery has been kept in operation the year-round in spite of this short season of local production, continuing to provide a market for the Columbia River's resident fishermen when they find the Albacore, and the community's principal payroll even when they don't.

Further, it is the story of how a company whose fish canning history covers three-scores and ten maintains the good name of its premium brand by painstaking, persistent, penetrating quality control.

**LABORATORY EXAMINATION** of tuna samples is carried on continuously during all packing periods to assure conformity with U. S. tuna standards and the **Bumble Bee** quality specifications. Technologist using a **Luthi** tuna press.

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# FISHERIES RESEARCH INSTITUTE —

## Dr. W. F. Thompson Relinquishes Directorship to Dr. W. F. Royce

Wm. F. Thompson

Wm. F. Royce

● Dr. William F. Thompson, eminent fisheries biologist, July 1 will relinquish directorship of the Fisheries Research Institute of the University of Washington to Dr. William F. Royce, presently in charge of Alaska fishery research for the U.S. Bureau of Commercial Fisheries.

Retirement of Dr. Thompson from the directorship of the research institute he founded in 1946 under sponsorship of members of the Alaska salmon canning industry conforms with the administrative code of the University, the scientist having attained age 70 in April. He will remain associated with the University's College of Fisheries in an advisory and research capacity where his first concern will be the editing and preparation for publication of the scientific data and studies of the F.R.I.

Dr. Royce is a dedicated fisheries research scientist with an unusual breadth of experience. A New Englander by training, his early investigations were concerned with North Atlantic problems. Then he accepted a senior position on the biological staff of the Pacific Oceanic Fishery Investigation at Honolulu. In 1955 he advanced again, this time to the post of chief of fisheries research for the Fish and Wildlife Service in Alaska, where his work since has won the admiration of the fishing industry as well as scientists.

● In addition to the change in its direction, the Fisheries Research Institute, which has been an element of the Graduate School of the University of Washington, was shifted to the College of Fisheries when it was raised from the status of School of Fisheries in the University's table of organizations, Dr. Richard Van Cleve, director of the School, advancing in rank to dean of the College.

The Fisheries Research Institute operates primarily on resources provided by research contracts presently granted by Alaska salmon canners, the American Section of the International North Pacific Fisheries Commission, and the United States Bureau of Commercial Fisheries. Its budget for the current year approximates $750,000, derived almost equally from the three sources.

Because of its close relation with the fishing industry through research contracts, the Institute is served by an advisory committee representative of the fisheries of the North Pacific, memebers being appointed by the president of the University.

● As he relinquishes direction of the Fisheries Research Institute which he founded, Dr. Thompson is freed of administrative detail and enabled to devote his attention largely to research and the publication of the mass of material produced by the F.R.I. investigations.

His record in science and his service as a biologist are of the highest. A pupil of Dr. David Starr Jordan and Dr. Charles H. Gilbert, he came to out-strip his pioneering masters in scientific contribution.

While still a student, in 1913 he undertook the first scientific study of the halibut at the request of John Pease Babcock, commissioner of fisheries of British Columbia.

He was founder and first director of the California State Fisheries Laboratory.

He was first director of the International Pacific Halibut Fisheries Commission, 1924-40.

He was professor and director of the University of Washington School of Fisheries at various times and under several arrangements during the period from 1930, when he first became associated with it, until 1946, when he organized the Fisheries Research Institute. At times in this period he was at once the chief officer of the school, and at the same time director of both the Halibut and Salmon commissions.

In 1940 he withdrew wholly from the Halibut commission investigations; and in 1942 from direction of the Salmon commission work, although remaining with it for some years in a consultant capacity.

In 1946 he withdrew from direction of the School of Fisheries to devote himself fully to scientific study through the Fisheries Research Institute, founding the Fisheries Research Institute and directing its studies to the present.

He is the senior American member of the Biological and Research Committee which planned and directs the monumental oceanic research projects of the International North Pacific Fisheries Commission.

He is president of the American Institute of Fishery Research Biologists.

● These are steps in a rising path. To count them makes no pretense of evaluating the scientific contributions which have flowed from them—which continue to flow. These achievements, though unfinished, may be fairly appraised as pre-eminent in their particular area of Man's scientific advance.

## Alaska Year-Round Buys Cook Inlet Packing Co.

Purchase of the Cook Inlet Packing Co. by the Alaska Year-Round Canneries was announced the middle of April by Jack Lind, vice president and superintendent of the purchasing company.

Cook Inlet Packing Co. was owned by the estate of the late S. A. Estus. It will retain its identity under its new ownership, but the cannery at Seldovia will not be operated this year. Rather, the Cook Inlet company's fish will be canned in the Alaska Year-Round cannery there.

In the past several years the Cook Inlet company's operations have been in the Snug Harbor consolidation.

President of the Alaska Year-Round Canneries is A. H. Soeneke, with J. E. Salmon and Mr. Lind as vice presidents.

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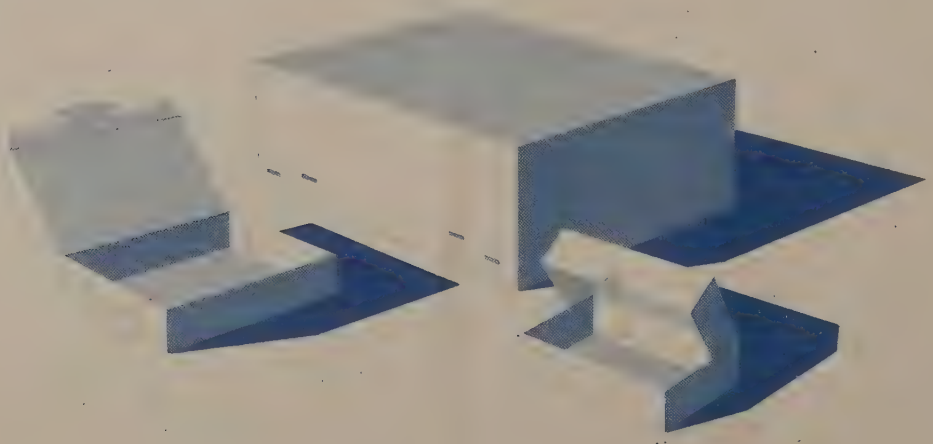

PACIFIC Fisherman's NEWS

MAY 1958

## Early Westward Halibut Season Not Phenomenal

● Early reports from the 20-boat fleet working the Area 3B month-early halibut season west of the Shumagins indicated fair fishing, but certainly no bonanza.

Largest load reported to presstime was that taken by the *Pacific,* which had 75,000 lbs., part of which was discharged at the Aleutian Cold Storage Co. at Sand Point, while the rest was run south to catch the expected early market bulge. The *Sea Ranger* at the same time was reported to have 48,000 lbs.

*Pacific* is believed to have taken her trip along the Bering Sea "Edge", running northwesterly from Unimak Pass, where the *Polaris* a few years ago encountered the heaviest halibut fishing on record.

Early April weather south of the Alaskan Peninsula was very favorable, but that on the Bering Sea side was bad indeed.

## Matt Madsen Injured; Son Skippers "Ilene"

Capt. Matt Madsen, an American member of the International Pacific Halibut Commission, and owner of the 1957 high-line halibut vessel *Ilene,* suffered a broken leg in a fall while putting the vessel into condition for the 1958 season. As result, he was on the beach for the season opening and his son, Arne Madsen, took over as skipper, a post he has filled during a considerable part of the last several seasons.

## American Fishermen Fight to Protect Principle of Abstention; Historic Fishing Rights

● In the face of many IFs American fishermen in April marshalled their forces to fight the effects of the prospective international law providing a 12-mile territorial sea for fisheries, but a 3-mile limit for defense.

Objectives and strategy of the fight had not fully taken shape at presstime, and this because of the big IFs.

These uncertainties derived from whether:

1. American adherence to the Geneva code would be in the form of an executive agreement or a treaty—the latter requiring ratification by two-thirds vote of the Senate.

2. Guarantees of respect for historic fishing rights are included in the code, or are covered by separate international conventions between nations directly involved.

3. Principle of Abstention is incorporated in the code of the Law of the Sea which may emerge from Geneva.

### What is Being Done?

● With the big IFs unanswered, concrete action was limited and confined largely to planning campaigns for the several contingencies which might develop.

Although April activity was confined primarily to the several regions most closely concerned with probable restrictions on fishing under a 12-mile limit for fisheries, preliminary steps were being taken to draw these regional elements into an organization of national scope.

Regions of the United States which are expected to be most directly affected are:

*Pacific Northwest* — Where salmon trolling, bottomfish trawling and halibut fishing off Vancouver Island and in Hecate Strait would be adversely affected.

*Pacific Southwest*—Where Albacore and market fishing in the vicinity of Los Coronados Islands and Guadalupe might be closed.

*Gulf States*—Whose shrimp fishermen might lose substantial areas of their most productive grounds.

*New England*—Where the trawl industry, already hard-hit by imports, would be crippled by curtailment of fishing area available to it.

Emergence of a national agency or conference designed to focus national action was expected by many elements among fishery producers as this issue went to press.

### What Can Be Done?

● Until Geneva developments can be examined in full the question as to

## Alaska Fishermen Re-elect Johansen and Lundmark

With George Johansen unopposed for secretary-treasurer and Swan Lundmark winning over Olaf M. Johnson for assistant secretary - treasurer, the Alaska Fishermen's Union's annual election returned this veteran team to office. The new term will be Johansen's eighth and Lundmark's seventh.

The union's agents were re-elected without opposition: Abe Lehton, San Francisco; Swan Ohman, Portland; Jack Woods, Bellingham; Oscar Ericksen, Ketchikan.

Mr. Johansen was elected a delegate to the AFL-CIO convention and, together with William Lehto of San Francisco, to the Pension committee.

Members chose for the AFU policy committee were: Arnold Roswick, Henry Gruntman and Fred Hegre, with Rasmus Mikkelhaug as alternate.

## "Helen Ann" Sinks With Cargo of Tuna

The *Helen Ann,* a 130-ton tuna clipper, managing owner A. T. Procopio, went down off Costa Rica last month, taking with her a capacity load estimated at $270,000. Her crew of 13 including her skipper Salvatore Alioto were safe and ashore at Punta Arenas. Cause of the accident was unknown, Procopio said in San Diego.

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what *can* be done cannot be answered in full.

Some expressions of opinion heard at fishermen's meetings in April ran along these lines:

*U.S. Senators*: Opinions of Senators Magnuson and Jackson of Washington, expressed at a meeting in Seattle April 9, were that, if the Geneva conference produced a treaty requiring Senate ratification, a very effective fight could be made against it. States *direct* affected number 14. Ratification could be prevented by the votes of senators from 16 states, or their numerical equivalent.

*Congressmen*: Thor Tollefson of Washington, speaking at the same meeting, said the United States, if it is committed to accept the 12-mile limit for fisheries, must tie it to acceptance of the Principle of Abstention on the one hand and the Principle of Recognition of Historic Fishing Rights on the other. This could be done in the code itself or by independently-negotiated treaties with countries directly concerned.

Thomas M. Pelly of Washington, speaking the same day, declared that retention of the status quo was most desirable; but that the principles of Abstention and Historic Rights were paramount in any executive agreement or treaty. He felt that Congress would be ready to exclude from United States markets fish produced from waters where the United States fishermen had an historic fishery closed to them by a 12-mile territorial sea for fisheries.

*Trawlers*—Effect of the 12-mile rule would be to impair conservation of other species, according to John Wedin, manager, Fishermen's Cooperative Association, in that it would force draggers into other fisheries already fully exploited, such as Northern California trawl fishing and the new fishery for Ocean Pink shrimp.

*Halibut Fishermen* — As Canada catches about half of its halibut off American shores; and as a 12-mile limit in the Gulf of Alaska would make it uneconomic for Canadian halibut fishermen to venture there and further to Westward, it is probable that eventually a reciprocal arrangement could be worked out by treaty, or amendment of the existing International Halibut Convention, oldest of the fishery conservation treaties between nations.

*Salmon Canners*—A 12-mile territorial sea for fisheries definitely undercuts the Principle of Abstention, and may destroy it. For example, at Geneva on March 12 delegates of the U.S.S.R. declared for the 12-mile territorial sea, and at the same time attacked the Principle of Abstention. Substitution of a 12-mile territorial limit for the Principle of Abstention would destroy the North American salmon resource by permitting Asian fishing fleets to operate within 12 miles of the coast of Alaska, British Columbia and the Pacific states, W. C. Arnold, managing director, Alaska Salmon Industry, Inc., declared at the April 9 meeting.

*Trollers* — Displaced from waters where they have fished since trolling first began, the largest fishing fleet numerically will become more than ever a mobile unit, ranging up and down the Pacific Coast wherever opportunity offers, creating a condition which has always reacted adversely on effective conservation. American trollers particularly deplore the emergence of the 12-mile problem at this time, when the Pacific states and Canada for the first time are applying uniform seasons for troll fishing in order to prevent just such destructive concentrations of fishing effort.

## Purse Seiner Lost

The purse seiner *Arlene S.*, carrying a full fare of Yellowfin, foundered off the coast of Baja California.

Her crew, unhurt, was rescued by quick action on the part of the *Anthony M.*, another purse seiner fishing in the same waters. The *Anthony M.* set the *Arlene's* crewmen down at La Paz, whence they caught a plane home to San Pedro, Calif. John Sestich of San Pedro is captain of the *Arlene S.*

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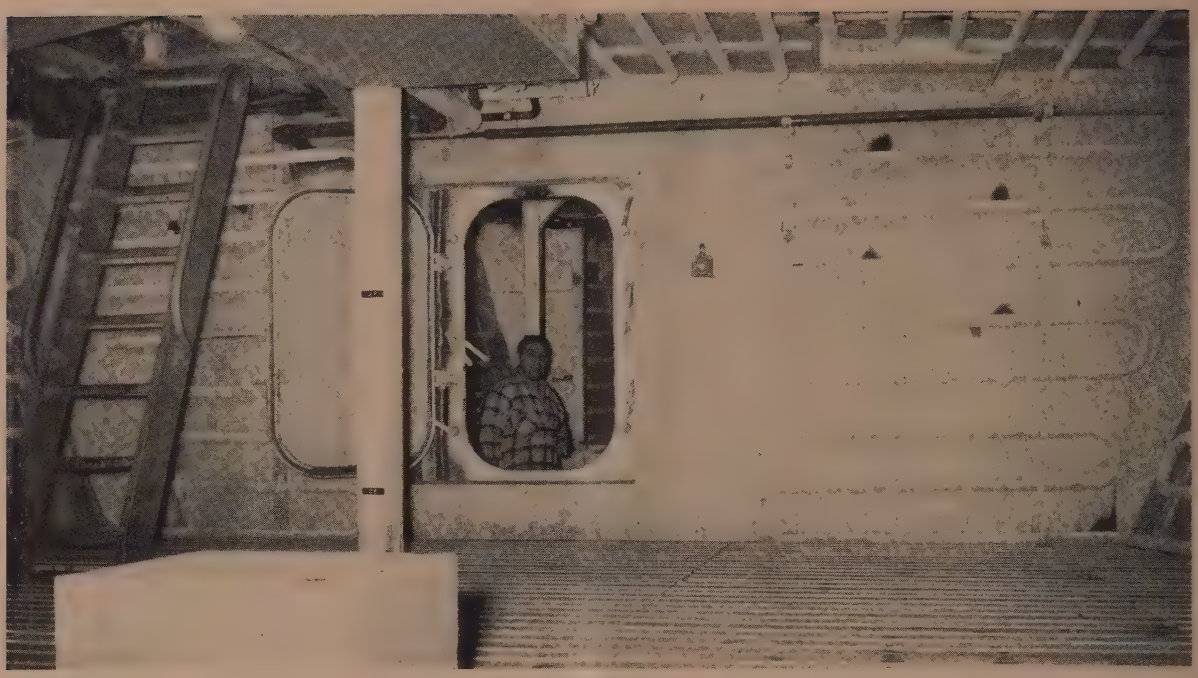

**Cold Hold for Hot Sea**—Heavily refrigerated storage space on the Maigu I with 4" styrofoam insulation. The Manns company installed a thermal expansion valve, stop valve and hand expansion valve by-pass on each coil section.

# Outfitted to Fish and Freeze in the World's Hottest Sea

● Persian Gulf shrimp and bottom fisheries will be modernly equipped as this oldest area in mankind's civilization enters upon its industrial seafood phase this spring, with three vessels specially equipped for this superheated region by San Francisco boat yards and refrigeration contractors.

These three boats include two former West Coast purse seiners for fishing and a Navy PCS patrol boat for station ship. The three are air-conditioned, refrigerated, and equipped to catch and pack perishable products in one of the world's hottest coastal regions.

● The purse seiner, formerly *Pacific Star* of Monterey and *West Coast* of Terminal Island, were converted and equipped for their new duty at the Pacific Dry Dock and Repair Co., Oakland. Their General Electric air-conditioning units were installed to render the crew's quarters, galley and wheelhouse comfortable even under the savage sun of the Persian Gulf. The vessels carry one-ton Vilter Pak-Icers to refrigerate their catches.

Trawling equipment features three-drum Stroudsburg dragging gear, widely used in the American shrimp fishery. Navigation equipment includes Bendix direction finders and Bendix "Commander" recording depth sounders.

Conversion completed, *West Coast* was renamed *Maigu II* and *Pacific Star* was given the new name of *Maigu III*.

## "Maigu II" Lost

● As this issue of *Pacific Fisherman* was going to press with the article on the Maigu operations it was learned that the fishing vessel *Maigu II* was lost early in April in the Red Sea. The vessel was caught in a heavy gale and driven ashore to become a total loss.

Whether she would be replaced was unknown.

They sailed together in mid-winter with Capts. Sam Baco and Nick Knezic, both of San Pedro, in command.

Crew members of the vessel were Costa Ricans, and the first stop of the two vessels was Puntarenas, Costa Rica, where additional crewmen were signed on. Home port of the fishing craft henceforth will be Khoramshar, Iran.

### Refrigeration Is Vital

● *Maigu I*, the 136' former Navy patrol boat, underwent extensive remodeling and conversion at the yards of Anderson & Cristofani, San Francisco, with the Ralph E. Manns Co., San Francisco and Wilmington, as the primary contractor. Work and equipment on this vessel alone is expected to come to $250,000.

This craft will serve as mothership or station vessel for the Maigu fleet, and at the same time will fish on her own account. Her refrigeration installation some 27,000 board feet of Styro-

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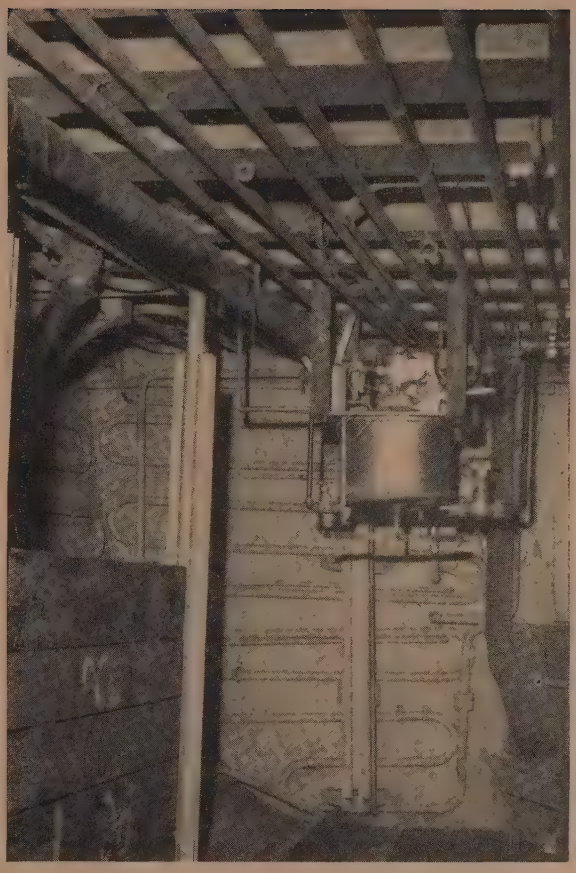


Pak-Icer installation on fishing vessels puts this unit in the open, refrigerated hold, where its ice is delivered most conveniently for use in icing the shrimp catch in bins in the hold. Coils refrigerate all exterior surfaces.

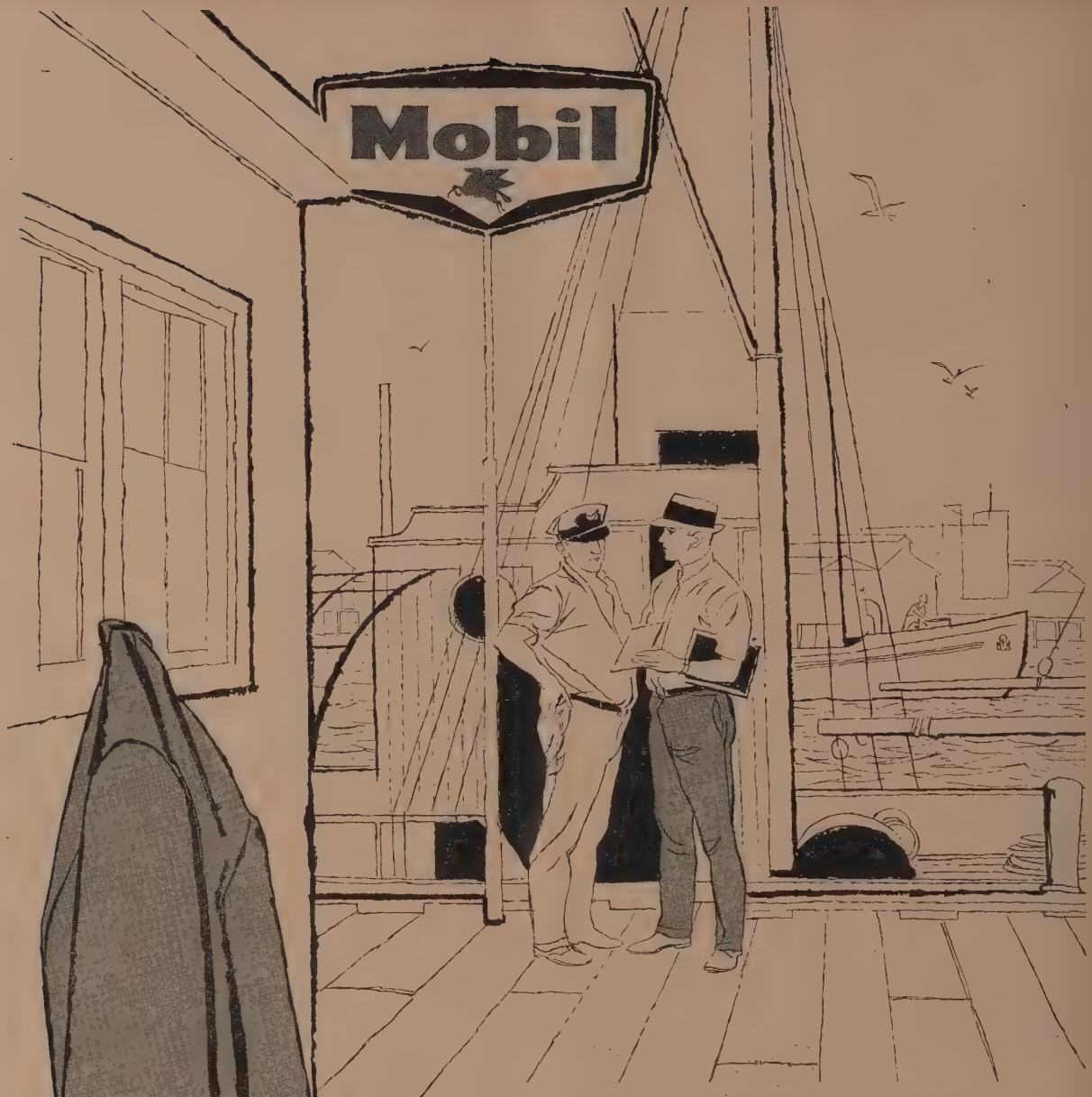
foam insulation in 2, 3 and 4" thickness; 10,000 lineal feet of ammonia coils 1¼" diameter; and two 8-cylinder Vilter ammonia compressors, direct connected to General Motors diesel engines.

Air-conditioning of the vessel is provided by a Carrier 1,200 cfm. Freon unit. Galley and ship's stores are also fitted with refrigeration and below-freezing storage. An Ogden water purifier, delivering 1,200 gals in 20 hours, was installed.

To equip her for fishing in addition to her primary function as a station vessel, *Maigu I* was equipped with a 4-speed Stroudsburg winch powered with a 15-hp. electric motor.

This boat is skippered by Captain R. L. "Dog" Deskin, veteran steamer and fishing boat captain who calls Baldwin Park, Calif. "home". He will carry a full crew of 35 to 40, including shrimp processing hands, when in operation. Overall management of this Iranian exploration and fishing fleet operation is in the hands of Captain

**Freezer and Fisherman, Maigu I** is the flagship of the Maigu fleet. She was converted for her duty in the world's hottest sea by Anderson & Cristofani, San Francisco, at a cost of about $250,000. Her Vilter Pak-Icers are housed in the boxes on the forepeak just forward of the pilothouse.

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2-216

John E. Rawlings, an official of the Maigu Co., Inc., operators, and former skipper of the California tuna clipper *Paramount*. Chief Engineer for expedition is John Turner, of Santa Ana, Calif. who has been with tuna clippers for many years and served with the U. S. Navy during World War II.

The refrigeration equipment on *Maigu I* is designed to freeze 1050 lbs of chilled shrimp in cartons per hour; to manufacture 15 tons of ice from seawater in 24 hours; to maintain hold temperature of -5 degrees F with an outside water temperature of 86° F.

### Shrimp Freezing System

● Product fishing is handled by an Amerio Type C plate freezer. After the shrimp have been size-graded on a "Sort Rite" sorter and hand-packed in 5-lb. Fibreboard Products cartons, the packages are placed on the refrigerated plates of the Amerio unit. When these plates are fully loaded the cartons are brought under pressure between the low-temperature plates, whose movement is controlled hydraulically. The freezing plates on this unit are fitted with thermal expansion valves.

Ice-manufacture is entrusted to two Vilter vertical Pak-icer units situated on the main deck forward. They make sea-water ice and operate on ammonia with single-stage high suction or booster suction. Each unit will deliver 7½ tons of ice flakes in 24 hours. As in the case of the plate freezer, the Vilter Pak-Icers are equipped with thermal expansion valves. The two 8-cylinder Vilter ammonia compressors are direct-driven by General Motors 6-71 diesels and have 25% and 50% capacity controls built in to permit manual operation if desired. Each is valved for booster, high-stage or single-stage operation. Since the diesel engine speeds can be regulated and the compressor capacity controls can be operated manually, this system has a very wide range of capacity.

The storage bins are coiled with 1¼" black steel pipe coils split into sections, each with a thermal expansion valve and hand expansion valve by-pass. The brine tank, aft, has sufficient pipe coils and circulating pump capacity to chill a tank of fish or shrimp in precooled seawater to 35° F. in 24 hours or less.

In this system, which is considered to be somewhat oversize for the requirements, the suctions from all evaporators discharge into a suction trap. The booster compressor, thermal valve fed, discharges through an intercooler for superheat removal. The condensers, manufactured to ASME standards, have approximately 700 sq. ft. of cooling surface, are of the multipass type, and are designed for condensing water flow of approximately 350 gpm.

**Primary Freezing Factors**—Jack Howe, project engineer for Ralph E. Manns Co., shows the two 8-cyl. Vilter compressors, direct-driven by G. M. diesel engines obscured in the background. Lower picture shows the Amerio plate freezer aboard **Maigu I** which will freeze 1,050 lbs. of packed shrimp per hour. Storage holds will be held at 5° below 0° in spite of extreme temperatures prevailing on the Persian Gulf.

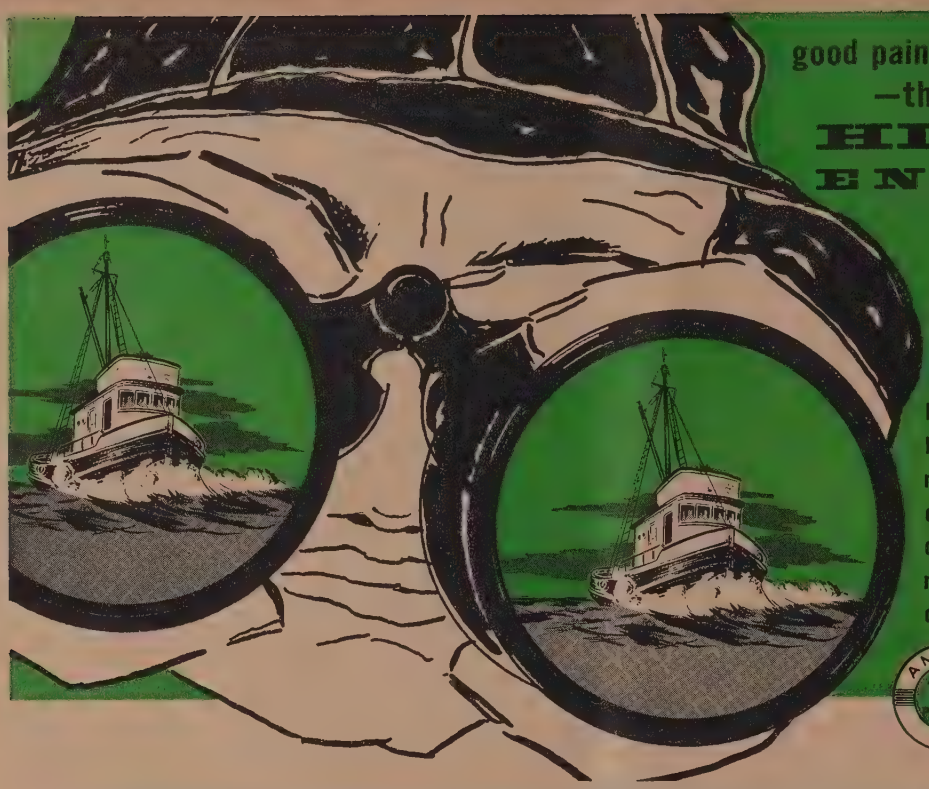
### For Safety and Comfort

Capt. "Dog" Deskin figures that his ship will be about the coolest spot anywhere in the Near East where, even at sea, temperatures are almost unbearably high and where even miles from shore you can have sand blow into your eyes.

Main engines, a pair of 500-hp. General Motors diesels, were original equipment on *Maigu I*, but were changed over from electric starting to air, with Grove regulator valves from the compressors.

Bendix automatic electric steering was installed as were new Adel "Isodraulic" hydraulic controls, both furnished by M. J. Gigi & Associates, Inc., San Francisco.

A new Bendix 250-fathom recording depth sounder was installed. The Radio direction finder, radar and radiotelephone are original Navy equipment.



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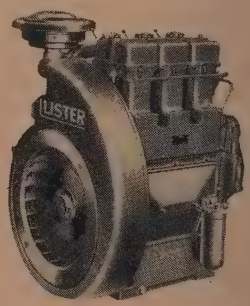


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# Every Fisherman a Scientist

## Without Dignity of Degree

By
D. L. ALVERSON

● The ability to catch and produce commercial quantities of a particular species of fish is a science fishermen inevitably practice whether they are conscious that it is a science or not. The fishermen's efficiency in capturing fish is based on his cumulative knowledge of the behavior of the fish with respect to its environment. The more he knows regarding the fish's behavior in relation to tides, winds, temperature, seasons, and temporal and special distribution, the better equipped he is to exploit the resource. The development of better fishing gear, new net designs, electronic aids, increased mechanization, larger and more efficient boats has undoubtedly allowed fishermen to increased fishing efficiency. Theoretically, boat efficiency or effectiveness might be expressed as the cumulative total of the partial efficiency each fishing item or accessory contributes to the fishing catch. At the Hamburg Congress, these expressions were noted. It was also pointed out that this equation does not consider the fisherman. The most important variable in determining factor in boat efficiency or the efficiency of any fishing gear will therefore be the *experience of the crew and skipper*. Thus fishing knowledge, skill, and intelligence of the men involved in the fishing operation remain the *key* factors modifying total fishing efficiency or the partial efficiency obtainable from any segment of the fishing paraphernalia. Any attempts by nations to increase fishing efficiency should give attention to assisting fishermen in increasing their knowledge of fish behavior. Fisheries technologists can also aid by bringing to the fishermen's attention efficient methods used to exploit similar species in other parts of the world.

● The scientist looks at the catch from the point of view of its importance with regard to the stock from which it was removed. Attempting to evaluate changes in fish populations and maintain fish stocks at high levels of production will always be an important facet of the management biologist's work. Along with these studies, the biologist must also study the behavior of the fish in relation to its environment. The fisheries scientist can aid the fishermen by pointing out what he learned of fish behavior. He can assist in revealing what to look for and help to interpret the fishermen's observations. The technologist must assist in inventing or modifying present fishing gear to take advantage of what the fisherman and scientists have observed concerning fish behavior.

In the field of fish behavior in relation to their environment, data collected on temperatures and fish distribution has been helpful in many fisheries. For instance, the Albacore fishermen of the Northwest are well aware that water temperatures below 58° F will seldom yield catches of this long-fin tuna and commonly refer to sea temperatures above this as "tuna water." Investigation of the relation of bottom-fish and shrimp occurrence to temperature could possibly aid local trawl fishermen.

● English and other European investigators have disseminated considerable information of this type to their fishermen. Repeated investigation by the English research vessel *Ernest Holt*, studying the relationship between bottom temperature and Atlantic cod distribution has yielded remarkable results. They have shown that the thermal structure aids in concentrating cod in a narrow strip. The best yields are made during the winter when bottom temperatures are between 1.75 and 3° Centigrade. Vessels exploiting bottom fish stocks in the North Atlantic are now using reversing thermometers to measure bottom temperatures and thus gage the possibilities of a successful set.

In studying haddock catches on the *Dogger Bank* (North Sea) as compared to bottom temperatures, it has been found that this species tends to avoid areas where bottom temperatures fall below 5° C or exceed 13.5° C. Best concentrations were found where bottom temperatures were between 5-8° C.

Considerable progress has also been made in locating North Sea herring by thermometric methods. Four inter-relations were reported by G. Dietrich, Sahrhage and Schubert to exist between North Sea herring concentrations and temperature: (1) in the summer and autumn, herring are concentrated in the core of cold bottom water; (2) the lower the temperature of this cold water, the longer the herring will remain concentrated in the area; (3) the geographical position of center of cold water may vary from year to year and cause a subsequent movement of herring concentrations and (4) the daily vertical movements of herring schools are influenced by the structure of the thermocline.

● These findings have aided fishermen in exploiting stocks of cod, haddock and herring. They can do the same for other species in other localities when the effects of seasonal temperature changes as related to fish distributions are better understood.

The study of fish in relation to ocean currents, areas of upwelling, etc., have also added to the knowledge of fish distribution. Investigations carried out by POFI have increased knowledge of the distribution of tuna in equatorial waters and outlined the potential of this fishery, a successful accomplishment regardless of who exploits the resource.

English and Norwegian scientists have also had success in relating the movement of Arctic cod onto the continental shelf to the movement of the "polar front" water. The Arctic cod evidently prefers to remain in the polar water and follows the "polar front" south. When the front is strong enough and moves up onto the continental shelf the cod moves in and disburses on the inshore grounds. At this time the fish are difficult to capture. They are most susceptible to the fishery when concentrated along the polar front prior to its moving inshore. By observing the intensity of this front and its movement, a system of predicting the best areas and time for fishing has developed.

● Another method of aiding the development of fisheries has been through exploratory fishing. This method is becoming popular especially in areas of the world where intense fisheries

---

Mr. Alverson is a biologist and fishery engineer, who attended the World Fishing Gear Congress in Hamburg, Germany, last fall. This is the fifth of a series of articles written as result of his observations at the Congress.

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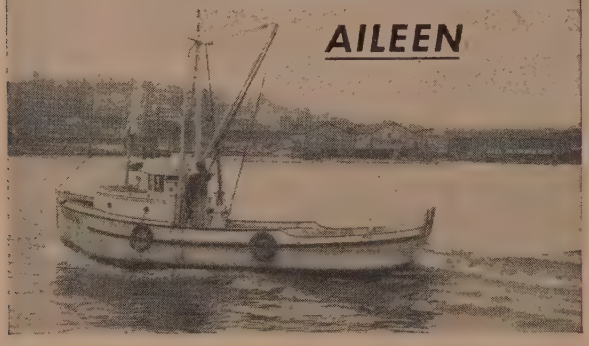

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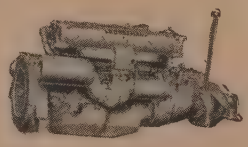

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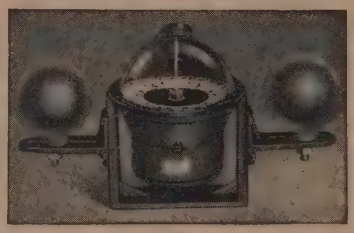

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have not existed. Exploratory fishing seeks to aid fishermen by carrying out costly prospecting, which at times is prohibitive for fishermen. In essence, the workers in this field seek to demonstrate the commercial availability of fish or shellfish in areas where fishing has not occurred or to elucidate on the abundance of a particular species not exploited even when within the perimeters of present fisheries. It is a tool or method of encouraging fishery expansion which is being adopted by all major fishing nations and many of the smaller nations of the world. The people of Israel are taking steps through exploratory fishing methods to develop and increase their sea fisheries. Australia, India, South American countries, and South African countries are also using this technique.

The results of fishery research are helpful to the fishermen only if the fishery scientist makes an honest attempt to see that the findings are passed along to the fishermen in publications and terms available to the men in the fleet.

The fisheries scientist might well remember that the fisherman is the basic producer of information for understudying fish population and fish behavior. If we fail to feed back useful information to the fishermen, we can not hope to increase the efficiency and thus the ability of the fishermen to exploit the resource. It would seem that productive research which is beneficial to fishermen and the scientist has a better chance to succeed when the scientist has a close relationship with the fishery and the fishermen who engage in cropping the resource.

## Seldovia Gets Mooring Facilities for Fishermen

Greatly improved facilities for mooring fishing boats at Seldovia, Alaska, are expected to result from a new dock and float for which the city has received funds. Immediate construction is anticipated in order that the dock may serve the fishing industry during the current season. It will meet a serious need which has handicapped development of Seldovia and the fishing fleet operating there.

The improvement will consist of a dock 300′ in length, reaching out to the edge of the flats exposed by the great Cook Inlet tides, with a further "deep-water float" extension for 180′, which will be in water with sufficient depth at all times for the largest fishing vessels.

The location of the pier and float will be immediately west of the present Standard Oil Co. dock, between it and the entrance to Seldovia Bay proper. It will extend about as far out as the face of the oil dock.

## 1958 Washington Smelt Production Runs High

With smelt catches still being landed in April, Washington state deliveries of Columbia River smelt were on the order of 1,750,000 lbs., with ultimate poundage of 2,000,000 regarded as possible.

The great majority of the catch came from the Cowlitz River, although some significant volume of fish was delivered at Columbia River points. The state total was expected to rank second only to 1949 in the past 10 years.

Prices in March averaged 3c per lb. to the fishermen, and went as low as 2c at times in some areas.

## Halibut Producers Co-op Chooses Clausen President

Fourteenth annual meeting of Halibut Producers Cooperative recently elected John Clausen of the *Blithe Spirit* president for 1958.

Other officers include: Al Schramen of the *Aurora*, first vice president; Walter Hofstad of the *R & H*, second vice president; Al Green of the *Winsome*, secretary and Roy DeBritz of the *Neskowin*, treasurer. W. B. Johnson is manager.

Six new members were added to the Board of Trustees, which now includes: Ray Thomassen, *Shirley;* Harold Chaney, *Royal;* Don Moe, *Partner;* Roger Bailey, *Karolee;* Jack Mattila, *Palma;* Norman Rustad, *Nordot;* Rodney Hurd, *Donna Jo II.*

Retiring trustees were: Mike Wojcik, *We Three;* Art Theberg, *Deep Sea;* Frank Rensch, *Henrietta W.;* Arne Einmo, *Polaris;* Olaf Schei and James Mansfield.

## Mackerel Looking Up

After a sad early season on mackerel, San Pedro boats in the first days of April located a good school off La Jolla and brought in the best day's catch to date—400 tons. Up to that time, total catch had been a poor 943 tons of Jack mackerel and 2,207 of Pacific mackerel, as compared with last year's 16,969 tons jack and 4,219 tons Pacific, to even date.

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**FOR SALE—NEW OVERHAUL PARTS KITS FOR BUDA DIESEL, MODEL 6LD-468.** Includes Liners, Pistons, Rings, Bearing Sets, Overhaul Gaskit Kit, Water Pumps, Cylinder Head, etc. PRICE: $225.00. Write for copy of Complete Kit Inventory. Hatch & Kirk, 5111 Leary Avenue, Seattle 7, Wash. Phone SUnset 3-2766.

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**JERRY'S BOAT SALES:** For any type or kind of boat or ship. World-wide contacts. Matt Batinovich, owner and broker. New location: 310 West 7th, San Pedro, Calif. TErminal 3-4482.

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## California Storms Cripple Spring Fishing Operations

Weather, mostly nasty, plagued the northern California fresh fish industry during March and early April.

Storms along the entire California coast kept the otter trawl fleet in port much of the time. When weather permitted, shorter trips were made, with most of the efforts directed towards taking of English sole and other species in the shallower waters (less than 100 fathoms) where usually found. A few good catches of Dover sole were reported from deep water off Pt. Arena.

An English sole tagged by the Washington Department of Fisheries at Destruction Island, Wash., July, 1956, was recovered off the Klamath river. This is the second fish recovered by the Eureka otter trawl fleet from this same group of marked fish, and gives an indication of a seasonal southern movement to the central Oregon-northern California region.

Landings at central and northern California ports of rockfish were curtailed. When the boats could work, otter trawl catches in the Monterey region were better than during the previous month. But, in the Morro Bay area, otter trawl catches were poor.

The same rough weather worked a hardship on the crab fishery. Strong southwest winds not only kept the boats in port but created cross currents, and high tides covered the crab-pot buoys, preventing haulings.


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# B. C. Fish Fleet Tops 8,000 Boats

● More than 8,000 fishing vessels were operated in British Columbia last year, according to a recently completed inventory made by the Department of Fisheries.

There were 985 vessels of ten tons or over, including 134 packers, 257 seiners, 36 long liners, 35 collectors, 57 seiner-packers, 39 seiner-long liners and 40 long liner-packers. In addition, there were six whaling ships and 380 not classified.

Among the smaller craft of less than ten tons there were 3,407 gas-driven gillnetters and 45 diesel driven gillnetters. There were 2,377 gas-driven trollers and 23 diesel trollers.

Estimated value of the vessels of ten tons or over was $26,744,000, and of the smaller craft $18,955.

The number of men engaged in primary fishing operations was 12,999, of whom 12,016 were licensed fishermen, the others being employed on packers and collectors.

Gear and equipment used in primary fishery operations last year in B.C. was valued at $7,997,000, the bigger items being $2,634,000 for salmon gillnets and $1,391,000 for salmon purse seines.

## Alaska Peninsula Area Yields King Crab Well

With fishing good and the crabs in excellent condition, American King crab operations fared very well indeed all along the south side of the Alaska Peninsula this spring. All quota expectations of the individual operators were filled by early April.

By the middle of that month the Wakefield fleet at least was expected to move around to the Bering Sea side of the peninsula for the second phase of the seasonal operations.

King crab fishing and yield in the waters around Kodiak Island also were reported favorable in the spring months.

## George Brajcich Heads Canadian Vessel Owners

President of the Fishing Vessel Owners Association of British Columbia is George A. Brajcich, owner of the seiner *Miss Georgina,* as a result of the organization's annual meeting in Vancouver late in March.

New vice president is Walter Steen, owner of *San Tomas.* Representing the various operating divisions are Fred Kohse, *Sleep Robber,* halibut; George Brajcich, *Freeland,* salmon; Hans Stoilen, *Western Ranger,* herring; H. McBride, *Gail Bernice,* trawling; E. J. Arnet, *Kodiak,* tenders.

**Antonio Perez** is the smiling superintendent of the Felipe Ganoza cannery at Chimbote.

Benjamin Lagos, owner of *Snow Fall,* is chairman of the membership committee, and M. Mjos, *Silver Viking,* publicity; Charles Clarke, *Western Producer,* government.

Harold Christenson continues as secretary-manager.

## New Jimmy for "Lurline"

Veilo Johnson, Fort Bragg, Calif., has repowered his troller *Lurline* with a GM 3-71 diesel engine purchased from West Coast Engine & Machine Works, Fort Bragg.


**The Standard of Quality**

- Drag or Trawl Winches of all types and sizes
- Purse Winches for all types of seiners
- Heavy duty Dandeline Blocks, Purse Blocks, Crab Blocks, Purse Davits, Stern Davits, Drag Doors
- Anchor Winches for boats 40 ft. and over

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  You'll find Nordby's Treatment Tank Facilities unsurpassed for protecting your nets and ropes with preservatives of tar, copper and plastics.
- ***"Fresh Up"* with PETTIT Marine Paints**

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# A DOZEN "JIMMYS" Join P.A.F. FLEET

Prior to the start of the 1957 commercial salmon fishing season in the Alaskan waters, no less than 12 General Motors Diesel engines were installed in both old and new units of the Pacific American Fisheries fleet.

Among new GM Diesel-powered boats built for P.A.F. by Grandy Boat Company, Seattle, is the 36-ft. beach seiner, "Lorrinda G." A 4-cylinder "Jimmy" gives her a cruising speed of 8.5 knots; top speed of 9 knots.

Fishermen everywhere are turning to these rugged, compact 2-cycle GM Diesels because they provide plenty of dependable, low-cost power with utmost safety, and save valuable space for payload. And when parts or service are needed, there's a GM Diesel distributor or dealer in every major port.

GM Diesels are built in a range of models to meet every fishing boat requirement—30 to 590 s.h.p. These honest-rated engines are available with either push-button electric starting or optional GM Hydrostarter—which gets your Diesel up to starting speed 80% faster—assures instant starts and eliminates dependence on batteries.

Call your GM Diesel dealer for full details—and be sure to ask about the new freer-breathing "6-71E" Diesel. It delivers 170 full working horsepower *at lower cost per horsepower than any other!*

**DETROIT DIESEL ENGINE DIVISION OF GENERAL MOTORS, DETROIT 28, MICH.**

Regional Offices: New York, Atlanta, Detroit, Chicago Dallas, San Francisco

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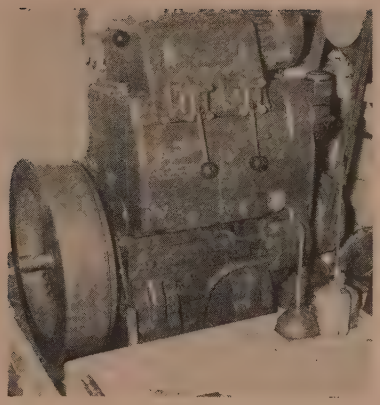
Parts and Service Worldwide

*Single Engines—30 to 864 H.P.*
*Multiple Units—Up to 893 H.P.*

GM GENERAL MOTORS DETROIT DIESEL POWER

GM 1908 • 1958

A 4-cylinder GM Diesel powers the 36-ft. purse seiner, "Lorrinda G.," fishing out of Sand Point, Alaska, for P.A.F.



# 'Pacific' Rolls Home With Big Trip and New Diesel

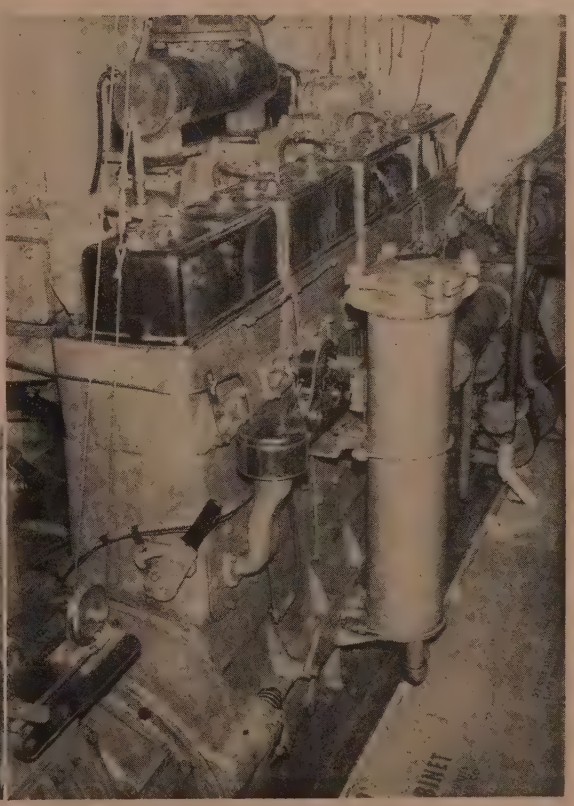
● First big halibut trip of 1958 was the 75,000 lbs. which Capt. John Overbo brought out of Bering Sea on his *Pacific* early in April. Stopping only to drop off a deckload of fish at the Aleutian Cold Storage Co. plant at Sand Point, in the Shumagin Islands, *Pacific* set her course for Seattle and the flush market which the first fares of the season always command. She was logging 11 knots, two faster than ever before in her 30-year career.

How did that happen? And how did the old *Pacific* come to be among the front-runners in the 20-boat fleet which opened the month-early season in Area 3B?

The answers are easy: Her new Allis-Chalmers DCMR 2505 marine diesel, which Chief Engineer Karl Brandal found produced a neat 11 knots on her trials in February. En route north, Capt. Overbo reports that *Pacific* made Ketchikan in 64 hours out of Seattle, using 750 gals. of fuel with the engine turning an easy 850 rpm.

*Pacific* was built for the late Ole Larsen in 1927 by Fishing Vessel Owners Marine Ways, Seattle; is 74' overall, 17.8' beam, 65 gross tons and 44 net.

Capt. Larsen was brother-in-law of



Here's **Pacific's** bright new Allis-Chalmers diesel, looking like a Boat Show exhibit in her engineroom. Nearby is her 18-hp. Lister diesel auxiliary; and her two highly-pleased head-men, Capt. John Overbo, left, and Chief Karl Brandal. They like her new mill and her new speed, which took the season's first big trip of halibut.

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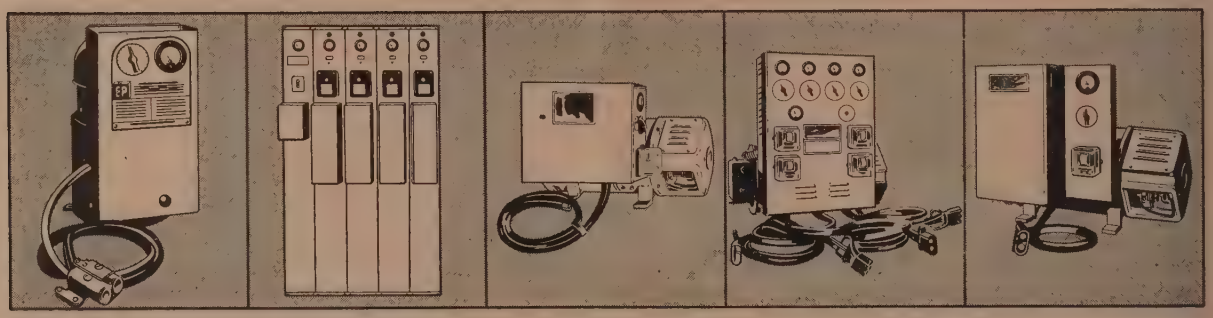

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This additional advantage in buying from Exide results from an agreement with Electric Products Co., Cleveland, Ohio . . . world's most experienced manufacturer of battery chargers. Exide now exclusively handles EP's entire line of chargers for all industrial applications. They are available from the same people who handle Exide industrial batteries—from the same 42 Exide sales and service offices in key cities coast to coast. This means close, efficient and competent service for all users of Electric Products chargers, old and new. Trade practices of Electric Products Co. will be continued.

Electric Products Co., first to develop many types of automatic chargers, makes a complete line of chargers for all industrial applications . . . industrial truck, switchgear, telephone, marine, mining, railroad. Models include fully automatic motor-generator and diverter pole equipment, plus selenium and silicon rectifiers. For years, Electric Products Co. has worked closely with Exide engineers in pursuit of its continuing research program.

Write for complete technical details and prices. Exide Industrial Division, The Electric Storage Battery Company, Philadelphia 2, Pa.

Exide®

present owner-skipper John Overbo.

There was little difficulty in repowering *Pacific*. Original engine beds were ample size, timbers hard as rock. When Pacific Fishing & Trading Co., Seattle, installed the new machine they just lowered it down the main hatch, worked it aft into position, and used steel H-beams over old beds to give proper alignment.

Her Allis-Chalmers diesel is rated max. 388 hp. at 1300 rpm. It is fitted with a Nugent Full-Flo oil filter and Air Maze filter. Mathers pilot house controls handle throttle and clutch separately; instrument panel is Stewart-Warner.

The reverse-reduction gear is a Western Gear Corporation "Sea Master" 75; its 2.88-to-1 reduction allows use of the original shaft and propeller, latter being Olympic 5-blade, 56 by 49". Hydraulically actuated, the gear is the same to be found in well-known *Challenger, Valiant Lady*, and others.

Some other equipment on *Pacific* includes Walter True-Center Model TC 4 keel cooler and Twin Disc front-end power takeoff incorporating Walter gear box for reverse rotation, to power the anchor winch.

Marine Equipment Co., Seattle, supplied a Lister 2-ylinder, 18-hp. auxiliary diesel to drive the generator for lighting, bilge and washdown pumps, and charge 32-volt Apex batteries. Pacific Fishing & Trading earlier installed some electronic equipment including Bendix automatic pilot and depth indicator. *Pacific* has an Apelco radio direction finder and an Intervox radiotelephone. Galley has an Olympic stove.

## 1958 Razor Clam Pack Cut by Alaskan Action

Production of canned razor clams is expected to reach an all-time low this season as result of inactivity in the Copper River area of Alaska, the most important producing center.

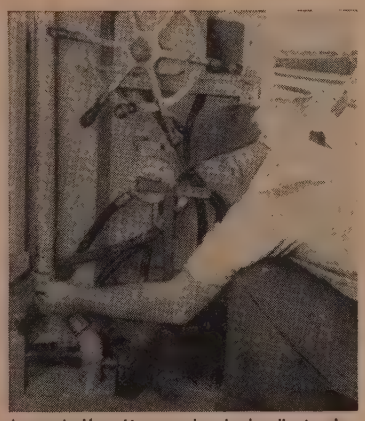
To presstime there had been no industrial canning in the Copper River area as result of the local diggers' rejection of the packers' offer of 12c per lb. for clams in the shell. This was a reduction of 1c from the 13c prevailing last year, reflecting the heavy, and increasing, competitive pressure from minced clams produced on the Atlantic Coast. These sea clams, dredged on the Atlantic, provide a minced clam which, while rather yellowish in color, undersells the peerless razors.

In the Copalis-Grays Harbor area of Washington the spring razor clam dig was excellent and an extension of the quota was granted in April.

The new Seacraft long-liner being launched at Chester, Nova Scotia.


# New Long-Liner "Anne Denise" Outfitted with Aeroquip Flexible Hose Lines

**FISHING VESSEL FIRST OF A NEW LINE BY SEACRAFT**



Aeroquip Hose Lines used on hydraulic steering unit of the "Anne Denise".

First of a fleet of 60-foot fishing boats, the "Anne Denise" is designed to go to and from fishing grounds fast, in any type of weather. Built by Chester Seacraft Industries Ltd. of Chester, Nova Scotia, it was outfitted with Aeroquip Flexible Piping.

On new vessels and for replacement, Aeroquip Flexible Piping offers these advantages: (1) corrosion problems are eliminated; (2) installation time is greatly reduced; (3) engine vibration and hull strain are absorbed by the hose; (4) fittings are detachable and fully reusable; low-cost replacements can be made quickly, even at sea.

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## NFI Exhibits—

# They Made You Think: Might Make You Money

● Exhibits at the National Fisheries Institute convention pointed the way to things to come in some aspects of the fisheries, and heavily underscored the importance of other older applications. Thoughtful fisheries people found much of interest and benefit in the equipment, supplies, services and products featured.

*Antibiotics* and their use in fish was of course the main subject at the American Cyanamid Co. exhibit. "When will they be permitted?" was the universal question. The Acronize staff wasn't committing itself, but there was much "smart money" around the convention which thought that antibiotic approval was certain before the end of summer.

*Laminates* of foils and films in packaging were the focal point in the brilliant exhibit of the Western-Waxide Specialty Packaging Division of the Crown Zellerbach Corporation, prepared and staffed by Karl Wuestenfeld, J. C. Tobin and their team.

*By-Products* are high in the interest of NFI members, and that made the Enterprise Engine & Machinery Co. exhibit particularly significant to them with its hammermill and multi-screw press fefatured by Michael E. Conway and a vigorous staff.

*Plastic* net floats of course were the main theme for F. R. Hammer and his helpers at the B. F. Goodrich Sponge exhibit, but the new life buoys and other flotation gear also had a place.

*Wrapping* of packages in the modern manner, and with the ability to handle the new foil and film materials was emphasized by Joseph T. Schooler of the Schooler Manufacturing Co. with his automatic and semi-automatic machines.

*Breading* materials and bamboo canes were main themes at the Golden Dipt Division Meletio Co. show where Jack Meletio, Phil G. Brady and G. E. Heimuller headed a team which numbered 12 all-told.

*Contrasting methods* of food packaging and sales were emphasized by the Marathon Division of the American Can Co., where Fred Deutsch, P. R. Rundquist and Anton Kuehn and their staff offered an exhibit showing the modern packaging in "Hi-Fi" Marathon lithographing alongside the wares and background of an old-fashioned grocery store, where visitors could have their photographs taken—and almost 400 did.

*Trawling* is important to many NFI members, and to the American Telephone & Telegraph Co., which had a booth to explain to trawl owners and operators the company's policy of compensating fishermen for gear lost on its submarine telephone cables.

*Electronic* temperature monitoring was featured by Hot Spot Detector-Zeleny and its instruments.

*Power* for fishing was presented by Caterpillar Tractor Co., Engine Division, in the only engine exhibit of the show with a big D337 engine cutaway, and a marine gear similarly exposed. A colorful aspect of the exhibit was the endless supply of buttonhole chrysanthemums in perfect "Caterpillar Yellow."

*Cutting* equipment for fish sticks in either the sawing or chopping method was the feature for The Biro Manufacturing Co.

*Glazing* of consumer packages of fish product by means of Amaizo Frodex was featured by American Maize-Products Co., where L. E. McEachern found keen interest in this developing technique — and particularly among men concerned with salmon packaging.

*Packaging* perfection in the large line of "LASSCO" products kept a crowd vocal with "Ohs" and "Ahs" admiring the Los Angeles Smoking & Curing Co. refrigerated display, where Louis Vitale and Mike McGee had one of the real stand-outs of the show.

*Synthetic* fibers for fish nets were represented by the Momoi Fish Netting company's exhibit where the company's famous "Marlon" netting was displayed in many colors, weights and meshes, and pictured in the world-wide applications of this remarkable blend of fibers. K. Kajiwaka of the company's Western Hemisphere office in Los Angeles ably supervised the exhibit.

*Films*, and particularly those of the shrink type, were featured by The Cryovac Co., whose exhibit included vacuuming, clamping and shrinking equipment; plus

a remarkably attractive refrigerated display of fish products protected and packaged in Cryovac.

*Hydraulic* jet cleaning of boat holds and fish packing plants was featured by Sellers Injector Co., where Frank Allen and Watts B. King discussed equipment widely used in the fisheries from Terminal Island to Ketchikan.

*Citric* products have remarkable possibilities in perfecting fish and sea foods. This was an opinion one could not well escape after a stop at the exhibit of Sunkist Growers, Products Department, featuring lemon juices for industrial food packing applications.

# Fish Divoteers' Have Fun, Make Hole-in-One at Spring Tourney

A 120-yard Hole-in-One was one of the features of The Fish Divoteers' twentieth annual spring golf tournament held at the Rainier Golf & Country Club, Seattle, April 11. Made by Walt Hanson, James Farrell & Co., it was the third in the organization's history.

The first Hole-in-One was made by the late Harry Tillman of San Juan Fishing & Packing Co.; the second being carded in 1956 by Mills Hay, Pacific Propeller Co.

With a record 155 golfers participating, competition was keen for the special awards and permanent trophies. Festivities at the "nineteenth hole" and the banquet in the evening were enjoyed by a near record crowd of 197 members and their guests. C. William Frankland, Kelley-Clarke Co., incoming president, presided.

Charles Schaak, Lines, Inc., attending his first Fish Divoteers tourney, won his spurs as master of ceremonies. His anecdotes and droll humor, fresh from the Seattle Yacht Club, enlivened the prize awarding period.

Low net in the first division went to Harvey Schmitz, Schmitz Box Co. Clare Kidd, National Bank of Commerce, won low gross honors. W. R. Meenach, Great Northern Railroad, and George Skarich, Colorado Fuel & Iron Corporation, were awarded permanent cups as winners of low net and low gross in the 1957 fall tournament.

In the second division, Bob Dignon, Northern Products Corporation, carried off the prize for low net. Homer Kyros, Arctic Maid Fisheries, was the low gross winner. Permanent cups for low net and low gross in this division went to Bob Dignon and Joe Antonelli, Fishermen's Cooperative Federation, Vancouver, B. C.

Kjell Dahl, Dahl Fish Co., Bellingham, Wash., came up with a good score to win low net in the third division, with the award for low gross going to Ike Alhadeff, Whiz Fish Products Co. Robert Ennis, North Pacific Seafoods, and Ron Eader, Marsh & McLennan-Cosgrove & Co., will cherish permanent cups as last fall's low net and low gross winners.

Guests did not compete in a separate division this spring.

The tournament was staged under the able leadership of Dick Little, Kelley-Clarke Co., assisted by Jack Waechter, Western Corrugated, Inc., Glen Wicker, Green Bay & Western Railroad, and Bill Hingston, Washington Fish & Oyster Co.

Prizes for the tourney were lined up by the Sponsors' committee headed by Jack Miller, James Farrell & Co., assisted by Frank Douglas, Ridgway Lithograph Co., George Golden, Food Brokers, Inc., Chuck Sellen, Booth Fisheries Corporation, and Dave Craig, Sebastian-Stuart Fish Co.

Entertainment was arranged by Dave Smith, Longview Fibre Co., chairman, assisted by Larry Carlander, Puget Sound Freight Lines, and Ed Fisher, Food Specialty Co. Handicapping was handled by Stan Bear, Whiz Fish Products Co., chairman, Elliott Benton, G. P. Halferty & Co., and Harry Backman, Sayre & Toso, Inc. Publicity was the chore of Carlton Hillyard, Pacific Fisherman, and Don Venables, Marine Digest.

## Cuban Fish Freezer Among World's Finest

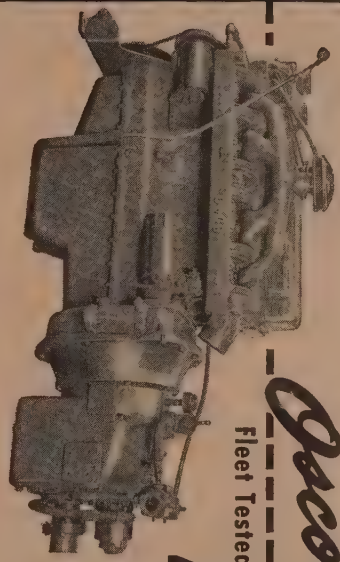
One of the most modern fish-freezing plants in the entire world is coming into operation in Cuba this year. It is the plant of the Terminal Pesquera de Cuba, built at Havana under direction of the Institute de Pesca of the Cuban government.

The entire establishment is said to represent an investment of $3,500,000, with $1,000,000 of the cost represented by the contract for refrigeration equipment to be furnished by the Frick Company.

Frick management reports that this is the largest single contract in the Frick Company's 105 years of manufacturing.

The plant's blast freezers, which are expected largely to handle packaged fillets and lobster tails, will have capacity of 100,000 lbs. in 20 hours.

1/4 MILLION proved ENGINE HOURS



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# Diesel Engine Sales, Inc., launches 700th trawler— Tobin Bronze Shaft is standard equipment

The launching of "Caribbean Sea" in February highlights the steady growth of Diesel Engine Sales, Inc., St. Augustine, Fla. Through the years, trawlers built by this company have piled up records of dependable performance. One of the quality features provided in Diesel Engine Sales boats is Tobin Bronze Shafting—which also has established an enviable record of over 70 years for dependability in transmitting power in boats of all types.

**RIGHT:** "Caribbean Sea," Diesel Engine Sales' 700th trawler, slides down the ways. **ABOVE LEFT:** Her 3-inch Tobin Bronze Shaft is being installed.

**TOBIN BRONZE®** Shafting has proved itself through its performance on thousands and thousands of pleasure boats, fishing and other commercial craft. It is this record of dependability that has made it first choice of boatbuilders and boatowners.

**TEMPALOY®-917,** nickel-aluminum bronze shafting—was developed by The American Brass Company for use requiring extra high strength. Repowering with higher horsepower engines often means replacing original shafting, too. Tempaloy provides the needed extra strength with no increase in shaft diameter—saving costly alteration of bearing, stuffing box and housing assemblies. Features: toughness and high yield strength—high resistance to shock—excellent corrosion resistance—lighter weight—special straightening—close diameter tolerances—individually wrapped and trade-marked—reasonably priced.

Both Tobin Bronze and Tempaloy propeller shafts are available through leading marine supply distributors. For detailed information, see your distributor or write: The American Brass Company, Ansonia Division, Ansonia, Conn. District Sales Offices: Los Angeles, Calif., at 14900 Garfield Ave., Paramount—San Francisco 4, Calif., at 120 Montgomery St. —Seattle 1, Wash., at 902 White-Henry-Stuart Bldg. 58114PF

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# Cut-Back in King Crabbing Ordered for Okhotsk Sea

● Sharp reduction in Japanese King crab fishing pressure in the Okhotsk Sea was provided by the terms agreed upon in Moscow April 4 as the first action releasing a Japanese fishing operation of 1958 in waters covered by the fishery convention between Japan and the U.S.S.R.

Number of motherships remains at four, although the Soviets originally proposed that this be halved. Production target is 80,000 cases per ship, with one vessel permitted 92,000 to compensate her for an unsuccessful operation in North Bearing Sea in 1957.

Tolerance of small and female crabs is limited to one per shackle of tangle net.

Waters south of 53° North Latitude are closed to all fishing, while there are seven closed strips each 4 km. wide running east and west north of this parallel.

In April each mothership is limited to 15,000 shackles of net fishing at one time. In May this is raised to 25,000 shackles, and thereafter there is no restriction.

In April nets must be raised in 6 days; in May 10 days; thereafter they may be allowed to fish for two weeks.

● Immediately following the acceptance of the Okhotsk program in Moscow, the mothership *Tokei Maru* left Japan for the Bering Sea fishing grounds off the entrance to Bristol Bay, Alaska. This departure was 10 days earlier than that of 1957, in order to permit studies of the sizes of crabs on the Alaska grounds, where they are said to average substantially larger in size than on the Asian banks.

## R. T. Hager Chosen Fisheries Council V.P.

Sessions of the Fisheries Council of Canada, held in Halifax, N. S., this year, were chiefly devoted to the affairs of the Atlantic seaboard, and few delegates from the Pacific coast accompanied the retiring president, O. C. McDonald, of Queen Charlotte Fisheries, to the meeting.

R. T. Hager, president of Canadian Fishing Co., Vancouver, was elected a vice president, and new directors from British Columbia are J. N. Hyland and E. L. Harrison, B. C. Packers; R. Nelson, Nelson Bros. Fisheries; R. L. Payne, J. H. Todd & Sons; Francis Millerd, Francis Millerd & Co.; H. B. Smith, Canadian Fishing Co., all of Vancouver, and T. H. Sorensen, Prince Rupert Fishermen's Co-operative Association, Prince Rupert.

The Fisheries Council urged the Canadian government to take steps to end discrimination against Canadian fishing craft over 65′ in length operating off the eastern Canadian coast, where the proposed 12-mile limit is more of an issue than on the Pacific coast. The United Fishermen and Allied Workers Union in B. C. has advocated extension of the present three-mile limit, which would debar American fishing craft from such important areas as Hecate Strait, but members of the Fisheries Council have not been active in this controversy.

Reason for Atlantic coast fishermen's interest in the subject is that for many years Canadian owned and operated fishing craft over 65′ long have been prohibited from fishing in the waters off the eastern Canadian coast which are open to foreign vessels. It is claimed that there is intensified fishing in these Canadian coastal waters by foreign-registered craft.

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MICHIGAN STAR — for vibrationless operation.
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. . . which is pretty solid evidence that users everywhere have found MICHIGAN propellers to be better buys . . . better in performance, better in repairability and corrosion resistance which means longer service and great economy.

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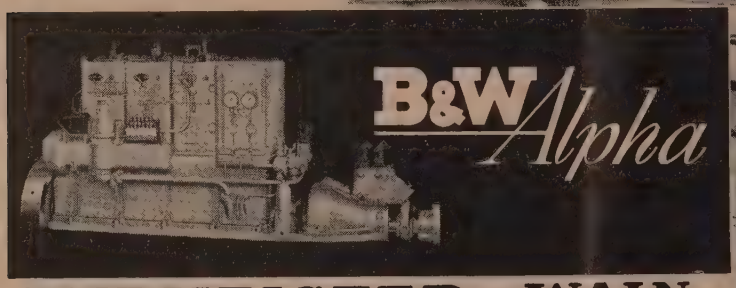
The world's outstanding designer of diesel engines offers the ideal power for coastal ships and fishing vessels. For more than one-third of the world's ocean-going motor ships Burmeister & Wain diesels were chosen as propulsion power. Investigate the advantages of having a B&W ALPHA engine in your vessel.

Available with fixed propeller or an integrated controllable pitch propeller unit.

Output 100–1000 BHP
at 450–310 RPM



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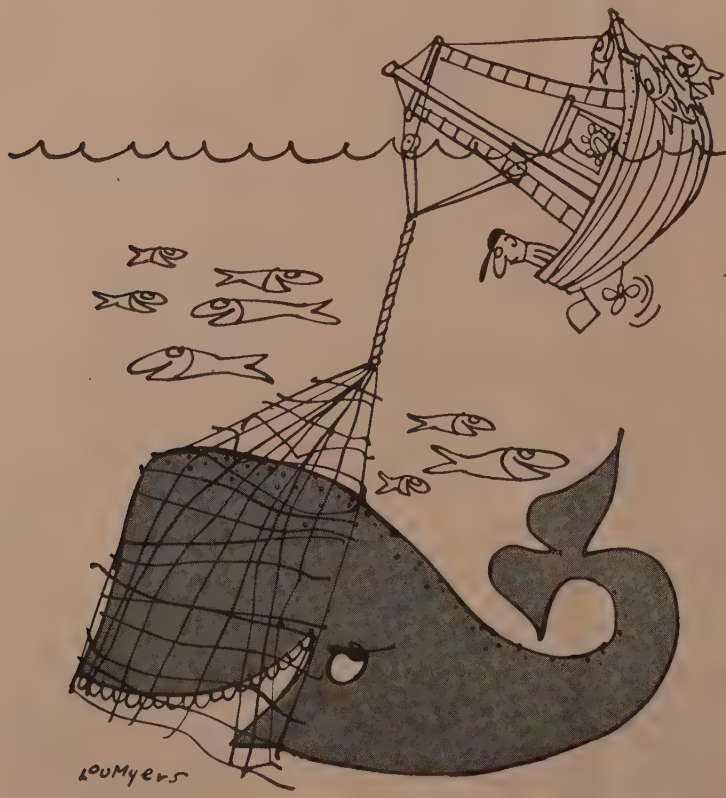


*Sometimes*
***Roebling Fishing Rope***
*is too dependable*

Strong, eh? Roebling Special Galvanized Fishing Rope is strong enough to do almost—but not quite—a whale of a job (anyway the boat isn't big enough).

One thing that keeps a wire rope manufacturer in business for more than 117 years is the fact that the rope he makes is strong for a long time. This strength factor is eminently true about Roebling Shrimp Rope, Trawling and Purse Seine Rope.

Granted, our illustration shows you *something* about its strength; your distributor waits, right now, to tell you all about it. If he's not in, write Wire Rope Division, John A. Roebling's Sons Corporation, Trenton 2, New Jersey.

*.. Buy From the Guy Who Eats Your Fish*

**ROEBLING**

*Branch Offices in Principal Cities*
*Subsidiary of The Colorado Fuel and Iron Corporation*

FOOD FISH MARKETING

Section of PACIFIC FISHERMAN--

*News and Views of National Trade in Fish and Shellfish*

May, 1958

# High Meat Prices React Beneficially for Salmon

● Salmon sales were drawing some stimulus from the high prices of meat this spring, said sales reports from national markets as this issue closed.

This was particularly true in those markets most affected by factory layoffs—Detroit, for instance.

At the same time, just as salmon was benefitting sales-wise from the high price of meat, so Chums were in demand and Reds and Sockeyes were suffering.

It figures.

Getting back to Detroit again: one seller specializing in that market terms the Lenten Chum trade there "fantastic".

Another notes as the reason for scant interest in Red halves the fact that you can get two cans of some kinds of tuna for what one half-pound can of Sockeye costs.

● Late April always brings talk of tax sales in the primary market, as Washington state taxes are levied on warehouse stocks April 30.

This gimmick gives an excuse for some sellers to clip 50c or $1 off the price of a case of salmon shipped ahead of April 30, thus saving perhaps half as much in taxes as it costs you in price. Good business.

Or there's the consignment route for those inclined to gamble. You put the stuff in a car and ship it somewhere ahead of April 30, hoping that when it gets there it will find a hungry buyer. As past experience has seen some such shipments shipped again, sellers this spring reported less tendency to monkey with the law which says that supply which arrives where there isn't any demand sometimes can't be sold.

● "What about the Lenten reaction to the canned salmon promotion campaign?" we asked a canned salmon man who keeps close touch on such things.

"Too early to tell much about the consumer movement. That has to be reflected in retailer orders in the coming weeks and months. We know the trade is inclined to pare its inventory pretty close to the quick this spring.

"However, we received a remarkable amount of first-class food-page publicity. I'd say we had blanket coverage of the American consuming market during Lent, and that newspapers in particular—and some magazines—gave us grand support. It *must* have helped; and we'll feel it later on. In the meantime, the campaign shifts now into the *Salmon for Summer* theme—and that's always a good one. Then Canned Salmon Week comes with arrival of new pack and August sandwich days.

I'd say we're doin' all right", the man said.

## New Quarters for Amende & Schultz

Amende & Schultz, frozen food brokers of Los Angeles, will move June 1 next to new, larger office quarters at 418 S. Central Ave., Los Angeles, it was announced last month by E. E. Amende and E. Schultz, partners.

Among the lines represented in the Southern territory by Amende & Schultz are Wakefield Deep Sea Trawlers (Alaska king crab), Astoria Sea Foods, Aleutian Cold Storage Co., Snake River Trout Co., Crest Importing Co. for Australian lobster tails, Taiyo-California, Tulloch-Western of Vancouver, B.C., and Swim Bros. of Lockport, Nova Scotia. The brokerage firm maintains frozen warehouse stocks in Los Angeles, Phoenix, and San Diego. The new quarters will include enlarged office space and leisure facilities for employees.

For nearly a century Bumble Bee Brand Seafoods have been packed in Oregon for America's tables. It is the most complete variety of quality seafoods in the nation. Every product reflects the integrity of Oregon's men of the sea. No wonder experts always pick BUMBLE BEE.
BUMBLE BEE BRAND SOLID WHITE TUNA
BUMBLE BEE BRAND FANCY SALMON
COLUMBIA RIVER PACKERS ASSOCIATION, INC., ASTORIA, OREGON
Tuna, Salmon, King Crab Meat, Frozen Seafoods, Seafood Delicacies

# Calif. Lenten Demand Outstrips Fish Supply

● The fresh-fish fraternity of Southern California counts 1958 its most successful Lenten season.

The demand for fish and shellfish, forced upward by the highest beef prices in many seasons, was well ahead of the supply. Fish wholesalers and brokers took this as a signal for intensifying their selling efforts, and market managements in Southern California fell willingly into line. More space than ever before was devoted to seafood in supermarket advertising in Southern California, some advertisements featuring several seafood items heavily, largely eclipsing meat advertising.

The Southern California Fisheries Association invested a special advertising budget in the favorable market situation, with the support of newspaper home economists, and even some columnists who made a human-interest issue out of the high price of beef, they went to town on the economy and high nutritive value of fish. Their advertising counselors were able to get Washington officials of the Commercial Fisheries Bureau to give two-minute interviews which were broadcast on radio and TV. Grocery trade papers also carried ads and publicity that helped lift the sales totals to unprecedented heights.

Fresh-fish men are now turning their thinking to the problem of how to prolong their Lenten success, in other words how to make housewives buy more fish all year round.

● The Lenten season might have been even more successful but for short supplies of almost all varieties of fresh fish. March, 1958, contrary to the old saying, did not go out like a lamb. After setting bad-weather records all month long, it stormed its way out in a succession of short but violent storms that kept many boats tied up, and destroyed a few of those that did go out. The weather contributed to the shortage of supplies, and as this issue went to press, inventories at the San Pedro fish market were low, wholesalers and brokers scratching their heads wondering where to get stock to meet customers' demands.

The weather improved suddenly the first weeks of April, and supplies may pickup in the following weeks. Lenten demands are of course over, but experts refuse to guess when beef prices will be reasonable again, and fish men are optimistic that the demand built up in Spring 1958 may be turned into a trend. Most agreed that one way to bring that about is to sell harder; and those who are selling harder are finding buyers in a receptive frame of mind.

## San Juan Appoints Johnson-Lieber Broker

As a part of a stepped-up sales program, San Juan Fishing & Packing Co. of Seattle announces appointment of Johnson-Lieber Co., brokers, as representatives for western and central Washington and Alaska for their complete line of frozen-fresh seafoods. Norm McGregor, assistant general manager, and Pat J. Ricci, assistant sales manager of San Juan, completed arrangements with Jack Flynn, manager, and Howard Yates, frozen food manager of Johnson-Lieber Co.

San Juan, one of the largest freezers and packers of frozen seafoods in the United States, is currently using a regular newspaper and outdoor schedule to build consumer interest in San Juan products.

## "Larry" Collins Shifts Out of Fish Field

Lawrence E. "Larry" Collins, for many years identified with the California fish canning industry has been appointed sales manager of the Hemet Packing Co., Hemet, Calif.

Mr. Collins was for many years with F. E. Booth Co., Inc., pioneer California seafood canners. Then he formed, with his brother Clark, the canned seafood brokerage company of Collins Bros. He was also a founder with the late Warren C. Boyd in Boyd-Collins Co., a frozen and fresh fish and shellfish brokerage concern in San Francisco.

Quality
Pink Salmon
KELLEY-CLARKE CO.
2460 6th Ave. S.
Seattle 4, Washington

## Dale Sidwell Concludes Salmon Deal in Japan

Dale Sidwell of Harold Sidwell & Co., London factors in fish products, visited San Francisco, Seattle and Vancouver, B. C., in April upon his return from Japan, where he concluded an import agreement covering frozen salmon trade between Japan and the United Kingdom. In discussions with American and Canadian factors he was gravely concerned with the fact that Great Britain issues no exchange permits covering shipments of frozen salmon and halibut from Canada and the United States, although permitting the business with Japan.

In 1957 a substantial part of the frozen salmon entering the United Kingdom from Japan was used for subsequent canning in Great Britain.

Mr. Sidwell said Japanese Albacore canned in jelly rather than in oil or in brine was making its appearance on the British market.

## Japan's Check Prices on Tuna for Canada

With April the Japan Canned Food Exporters' Association announced "check prices"—floor prices—on canned tuna in oil for sale to Canada.

This was the first time such "check prices" for Canada had been instituted.

Prices listed, fob. Japan, were: 1-lb. Albacore, 2 doz., $7.85; Lightmeat, $7.10.

Half-pound, four dozen, Albacore, $8.65; Lightmeat, $7.70.

## Lantz Brokerage Firms Move to Aid Growth

A. R. Lantz Co. has moved to larger quarters at 416 S. Central Ave., Los Angeles, it was announced last month by G. D. Vellis, president. Joining the Lantz firm in the move is the Cornman-Vellis Co., an associated firm.

A. R. Lantz is vice-president of the A. R. Lantz Co., and David Cornman is treasurer. Mr. Cornman is also president of the Cornman-Vellis Co., of which Mr. Lantz is vice-president and Mr. Vellis treasurer.

The new location is in the heart of Los Angeles's wholesale fish district, many brokers, processors and wholesalers maintaining their offices and plants within a few blocks' distance. The new location is also handy to the ultra-modern new California Consumers cold storage plant.

ROBERT L. STIX, INC.
CANNED and FROZEN FISH
Best Buys from Stix
New Zealand—Australian
Lobster Tails
260 W. Bway, N.Y. 13 Tel: WOrth 2-7527
114 S. Central Av., L.A. 12 Tel: Michigan 2525

## 28th Salmon Packers Register To Be Published This Season

● **Salmon Packers Register** will appear in its 28th edition before the end of the 1958 salmon producing season. Thus it will be available for the use of the industry and its suppliers during the full period of selling the 1958 pack and preparing for 1959 operations.

Initial canvass of companies engaged in the packing and marketing of canned salmon in the United States and Canada began before the end of April, in order to reach all company headquarters before any actual movement to the North begins. Prompt response to the request for data will contribute materially to timely publication and completeness of detail.

Physically the **Salmon Packers Register,** 28th Edition, will follow closely the pattern of previous editions, listing each company, with its headquarters address, location and capacity of all canneries operated, company officers and responsible personnel such as superintendents and purchasing agents, products, brands and sales agents.

Sales Agencies in the primary canned salmon market have a separate section of the book, in which are given names of companies, addresses, officers, brands, products distributed and other data.

● **Salmon Packers Register** is the standard directory of the salmon business. It is not published every year, but when sufficient changes have occurred in the make-up of the industry to call for a new edition.

While an adequate number of copies will be published for any probable demand, promptness of delivery and certainty of supply are guaranteed by placing orders in advance. This may be done at any time by addressing an order to **Pacific Fisherman,** 71 Columbia Street, Seattle 4, Wash.

Price of the **Salmon Packers Register** is $5 per copy.

● As an advertising medium, **Salmon Packers Register** for many years has proved to be a most effective means of selling the salmon industry, as well as of selling its products. In this role it appeals particularly to suppliers, fishing gear manufacturers, insurance firms, customs brokers, label and service houses; and as well to salmon sales agents, many of whom have been regular advertisers in all 27 previous editions.

A particularly attractive aspect of the Register for advertisers is the fact that it is used over a period of years, continuing to serve its advertisers for a long time at low rates, which remain the same as in the last edition.

## Fresh Fish Men Form Co-ordinating Council

The efforts made over the past months by a group of fresh-fish of the Northern and Southern sections of California to organize a state association seemed closer to success last month.

Meeting in Santa Barbara, 34 representatives, brokers and producers decided, subject to approval by their colleagues at large, to form a co-ordinated but regionalized organization to be known as the California Fisheries Co-ordinating Council.

The council would have northern and southern components, separately financed. Its work would be unified through a governing body made up of seven members from each regional group, plus one additional member chosen by the 14. Individuals and firms could join whichever regional group they chose. The 15-man council would be charged with the responsibility of co-ordinating the work of both regional groups.

At present, the chief interests of the organizers are (1) promotion of greater consumption of seafoods, through advertising and promotion in every possible channel; (2) investigating the possibility of putting into effect a marketing act governing the fisheries industry, as meat and poultry are now governed.

The seven co-ordinating council members from the south are: Al Castagnola of Castagnola Bros., Santa Barbara; Ron Deardon of Deardon Fish Co., Long Beach; Dick Delaney of Delaney Bros. Sea Foods, Newport Beach; Jack DeLuca of Santa Monica Sea Food Co., Santa Monica; C. M. (Tod) Ghio of Star Fisheries, San Diego; Carmine Menighino, Independent Fish Co., San Pedro; and Frank Tsuchiya, Pacific California Fish Co., Los Angeles.

At the Santa Barbara meeting, George W. Schreck, honorary chairman, welcomed the delegates, who were served a luncheon as guests of the Santa Barbara industry. Active chairman of the meeting was Howard Miller of San Pedro. Bart Ghio of Los Angeles acted as temporary secretary, and was later offered the post of permanent chairman, but asked for time to consider.

The group decided to meet again in San Francisco April 24, the meeting to be considered the first meeting of the California Fisheries Co-ordinating Council.

## Pacific Crab Men Seek Studies on Weights

● Pacific Coast crab meat operators attending the N.F.I. convention formally decided to request the Bureau of Commercial Fisheries and the national institute to start drawing specifications for weights and measures standards which would be applicable to the particular problems associated with fresh and frozen crabmeat, including experimental work to determine the effect of thawing practice upon edible weight.

It is not anticipated that this action will lead immediately to voluntary standards for the product generally, but it points the way to research aimed at the solution of problems which have perplexed the trade.

## Pacific Northwest Market

Market prices currently quoted at presstime by Pacific Northwest brokers and cannery sales department, cases of 48 tins, unless otherwise specified, good quality, as reported by the U. S. Bureau of Commercial Fisheries, Market News Service.

| Items and Packages | Per Case |
|---|---|
| **Puget Sound** | |
| Sockeye, halves | $23 |
| Sockeye, quarters | 13 |
| **Alaska** | |
| Red, talls | 33 -34 |
| Red, halves | 21 -22 |
| Pink, talls | 23 |
| Pink, halves | 13 -13.50 |
| Pink, 4-lbs. (12) | 24 |
| Coho, talls | 26 -27 |
| Coho, halves | 15 -16 |
| Coho, quarters | 9.50 |
| Coho, 4-lb. (12) | 26.50-28 |
| Chum, summer, tall | 18 |
| Chum, fall, tall | -17 |
| Chum, summer, halves | 11 -11.50 |
| Chum, fall, halves | 10.50 |
| Chum, 4-lb. (12) | 19 -20 |
| King, talls | 28.50-29 |
| **Columbia River** | |
| Chinook, ½ oval (12) | 14 -14.25 |
| Fancy, halves | 24 -26 |
| Fancy, quarters | 13 -14.50 |
| Choice, halves | 17 |
| Choice, quarters | 9.75 |
| Silver, halves | 16 -17 |
| Silver, quarters | 9 - 9.75 |
| **Tuna, Northwest Pack—** | |
| Albacore, fcy., 7 oz. | 12 |
| Yellowfin, chunk, 6½ oz. | 9.70 |
| **Tuna, Featured Pack—** | |
| Albacore, fcy., 7 oz. | 14.85-15.25 |
| Albacore, fcy., 3½ oz. | 8.50 9.15 |
| Albacore, chunk, 6½ oz. | 10.50-13 |
| Albacore, chunk, 3 oz. | 6.50- 8 |
| Lightmeat, fcy., 7 oz. | 14.25 |
| Lightmeat, fcy., 3½ oz. | 8.70 |
| Lightmeat, chunk, 6½ oz. | 12.50 |
| Lightmeat, chunk, 3 oz. | 7.65 |
| **Canned Crab—** | |
| Dungeness, 24, 6½ oz. | 11 |
| King, 24, 7½ oz., fcy. | 29 |
| King, 24, 1s, fcy. | 26.50 |
| King, 24, 7½ oz., fcy. | 14.60 |
| **Northwest Shrimp—** | |
| Wet Pack, 24, 4½ oz. | 7.50 |

The Fastest Selling Shrimp Packed in the Northwest!
PACIFIC PEARL
EXTRA SMALL SHRIMP
Packed in Washington, Alaska and Oregon.
* * *
For Additional Information—Contact . . .

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Exclusive Agents
701 Central Bldg., Seattle 4, Wash.
Telephone SE 4865—Teletype SE-573

They Add Up To A Lot of Sales!

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SALES COMPANY
3302 SMITH TOWER
SEATTLE 4, WASH.

# NORTHILL

DIGS FAST . HOLDS FAST... BREAKS OUT EASY

THE GARRETT CORPORATION AIR CRUISERS DIVISION
BELMAR, NEW JERSEY

**From father to son...**

**a tradition of *profitable* fishing**

**with...**

# Pauls NETTING

Look to *your* profits! Get the finest that is new in netting combined with the dependability built into Pauls Netting. See your supplier for...

PAULS "Lockknot" Double Knot Salmon Gill Netting (Nylon or Linen)—Cotton Netting—Bonded Nylon Seine Netting—Nylon Gill Netting—Dyak Netting. Also, Seine Twine in Cotton, Filament Nylon, Spun Nylon and Dyak.

***Pacific Coast Distributors:***

Horace Mercurio
223 Alvardo Street
Monterey, Calif.

Nordby Supply Company
Salmon Bay Terminal
Seattle 99, Washington

Olsen-Johns Ship Chandlers
36 Tuna Lane
("G" Street Pier)
San Diego 1, Calif.

Alfred Puusti & Company
238-240 West Marine Drive
Astoria, Oregon

# Monel helps keep this sea bus "on schedule"

**She's a crew boat for the oil industry,** powered with a pair of husky GM Diesels . . . top speed — 27 MPH. This 55 ft. launch carries a crew of 16 to offshore Venezuelan oil fields. And to assure top performance, to keep "downtime" to a minimum, her builder, the Sewart Seacraft Co. of Berwick, La., equipped her with two Monel* nickel-copper alloy shafts.

**Monel alloy is extra tough, extra hard, extra strong.** It withstands severe shocks, reduces breakage. It resists wear and can handle higher horsepowers safely. The excellent corrosion resistance of Monel alloy adds years of dependable service to the life of propeller shafts.

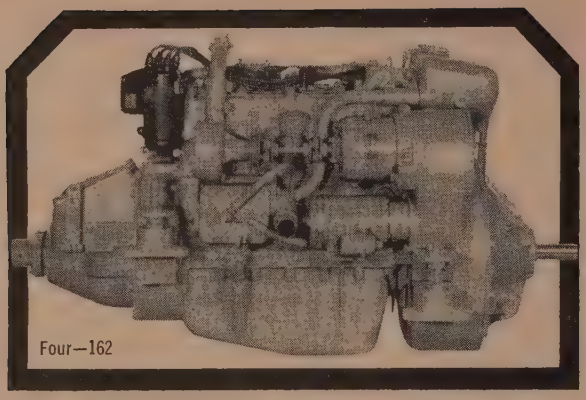
**Monel lasts longer in shafts** — lasts longer in other marine equipment, too: fuel and water tanks, galley equipment, rudder stocks—in all fittings and fastenings subject to excessive wear and corrosive attack. Ask your local distributor to fill in all the details.

*Registered trademark

**THE INTERNATIONAL NICKEL COMPANY, INC.**
67 Wall Street — New York 5, N. Y.

INCO

# MONEL
THE SEAGOIN* METAL




# WHERE ELSE can you get a Workboat Engine like this?

This interesting engine is unusual by ordinary standards, but the fact is that it's just another example of Gray's ability to meet the needs of workboat service. It has the following equipment:

1. Fresh Water Cooling System with high capacity centrifugal pump
2. Thermostatic Temperature Control
3. Magneto Ignition
4. High capacity, Constant-voltage Generator
5. Plate-type Oil Cooler
6. Built-in Power Take-off
7. Adjustable Rubber Mountings

Here are some other important details of this compact engine: First of all, it is a "Lugger", our name for an engine with low compression ratio and heavier flywheel, designed for superior idling and the ability to handle big loads. It has counter-weighted crankshaft for smoothness. It is available with reduction gear ratios to 3.5:1, and with either manual or hydraulic reverse gear.

This is a 4 cylinder engine rated 63 HP. The same design and equipment are available in Gray's larger 6 cylinder engines, up to 200 HP. All have the following features:

Heavy-duty type of cylinder block, chrome-nickel-iron alloy, with good thick walls, not subject to distortion

The design provides for water all around every cylinder bore, mighty important in a workboat engine

**Gray also builds 4 and 6 cylinder Diesel engines in the useful power range from 25 to 200 HP. If you want more information on these heavy-duty engines, write and tell us about your boat. We'll send free literature promptly.**

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**GRAY MARINE MOTOR COMPANY**
DETROIT 7, MICHIGAN
SUBSIDIARY OF CONTINENTAL MOTORS CORPORATION

## Tougher...Yet It Floats Better!

*Cut Fishing Costs With*

**ARK® PLASTIC FLOATS**

**USE FEWER FLOATS!** Ark Floats are more buoyant, never waterlog!

**LAST FAR LONGER!** Ark Floats can't rot—resist abrasion, splitting, squeezing, crushing—are unaffected by harsh cleaning agents, oil, gasoline! They are 50% lighter than cork!

**MONEY SAVER!** Protect your fishing profits with long-lasting, dependable, economically priced Ark Floats. See your supplier.

**FREE ARK FLOAT**—Sample will be gladly furnished. Cut out illustration of style wanted, and send with your name and address to Ark Float Dept., The Linen Thread Company, Inc., at below address.

A product of America's First Authority on Commercial Fishing Nets...

**THE LINEN THREAD CO., INC.**
**418 Grand St., Paterson 12, N. J.**

## STANDARD OIL AND MEAL PLANTS

Bigger profits through STANDARD fish processing plants! STANDARD'S low temperature drying system assures more meal and higher protein. No scorching, no burning. Low moisture low acid oil. Fish meal and oil plants . . . and fish cannery installations throughout the world.

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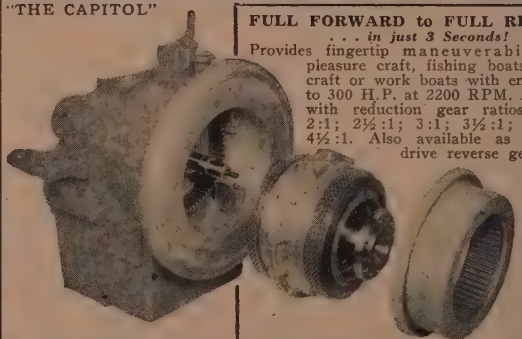
5013 South Boyle Street, Los Angeles 58, Calif.

"THE CAPITOL"



**FULL FORWARD to FULL REVERSE**
*. . . in just 3 Seconds!*

Provides fingertip maneuverability for pleasure craft, fishing boats, harbor craft or work boats with engines up to 300 H.P. at 2200 RPM. Available with reduction gear ratios 1½:1; 2:1; 2½:1; 3:1; 3½:1; 4:1 and 4½:1. Also available as a direct drive reverse gear.

Specialists in Marine Power Transmission SINCE 1905

**HYC hydraulic**
**Reverse and Reduction Gear**
*Write for new catalog and specify ratio desired.*

**CAPITOL GEARS**
**AUTO ENGINE WORKS, INC.**
**325 N. Hamline, St. Paul 4, Minn.**

# Ripple Rock's Erasure Does Fish No Damage

● When the biggest non-atomic blast in history occurred in Seymour Narrows, B. C., recently to remove hazardous Ripple Rock, it was the general assumption that considerable loss of fish life would result.

However, though 2,750,000 lbs. of blasting agents were used in the explosion, initial evidence of fish mortality indicated that there had been only minor damage to the fish stocks. The blast itself was a complete success, and the rocks were reduced to create a clearance for navigation of some 47', seven feet more than the contract had called for.

Five vessels, three from the protection branch of the Canadian department of fisheries and two from the Fisheries Research Board, entered the Ripple Rock area, between Vancouver Island and the B. C. mainland, within half an hour after the blast. These craft, assisted by their auxiliary motor boats, carried out a comprehensive search of the main channel and adjacent bays.

Destruction of fish, as indicated by floating remains, was much smaller than expected. The vessels found less than 100 fish, comprised of four species of rock cod. No fish were found more than three miles from the center of the blast. No salmon or herring were observed.

To obtain information on the effect of the blast on species which would not be expected to come to the surface when killed, fish were placed in cages on the bottom and at various distances from the explosion center. Losses were negligible. All cod survived, and what mortality there was might have resulted from the confinement in the turbulent waters rather than from the blast itself.

Fisheries authorities directing the investigation were A. J. Whitmore, chief supervisor; Dr. A. H. Needler, director of the Research Board at Nanaimo; Dr. J. P. Tully, chief oceanographer, and Dr. K. S. Ketchen of the research staff, and W. R. Hourston, technical officer for the department of fisheries.

## Scripps Scientist Dies on Cruise

Alexander V. Vorobiov, a fishery assistant aboard the *Stranger*, operated by the Scripps Institute of Oceanography, died while on a scientific cruise on Cedros Islands off Baja California last month. His body was brought home to San Diego aboard the *Stranger*. Mr. Vorobiov, 65, had gone ashore to photograph sea lions, and when he failed to return to the ship at the appointed time, a search party was dispatched and found him unconscious. He died before returning aboard ship. He had lived in San Diego ten years.

## Southern Fish Men Plan Country-Club Day

The strictly dry-land pastime of golf will probably dominate Country Club Day, to be held June 3 under the sponsorship of the Southern California Fisheries Association.

The place will be the Candlewood Country Club, Whittier, Calif.

Golf, however, will not be the only pastime. The club boasts a swimming pool and facilities for all sorts of games. General chairman of the event is Dave Henry, aided by the following committee: Vice-chairman, Dick Numamoto; entertainment, Al Knott; prizes, Saul Baker; dinner, Joe Kohler; golf, Steve Putnam and Numamoto; tickets, Gus Vellis and Nino DiMaggio; games, Buck Mills and Clarence Santo.

"fresh-caught flavor"

*frozen fresh*
HALIBUT
AND
SALMON
portion
controlled
steaks

*Complete line of*
FROZEN FRESH SEAFOODS

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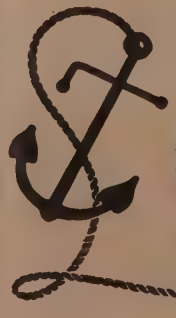
CALL
FORSTER SHIPBUILDING CO., INC.
TE 2-4527 P.O. Box 66, Terminal Is., Calif.



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DIESEL
MARINE ENGINES
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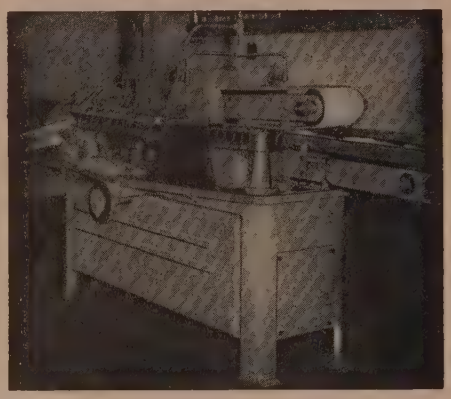
East Los Angeles: RAymond 3-7191
3400 South San Gabriel River Parkway, OXford 2-3751
San Diego, 2031 East Bolt St., BElmont 9-9471



# The PAK-SHAPER

**PREFERRED BY LEADING TUNA CANNERS!**

Introduction of the PAK-SHAPER in 1949 developed in tuna canning a greater mechanization than had come about in 30 years of previous growth. Subsequent experience has proved its value to the industry. A large percentage of major tuna operators now employ the PAK-SHAPER.

The PAK-FORMER, designed exclusively for Chunk and Grated Style Pack, is now available to the tuna industry under similar terms as the PAK-SHAPER.

*For Complete Information Write to*

## E. H. CARRUTHERS CO.

P. O. Box 1322, Warrenton, Oregon

WHEN you consider the number of years we have been making Mustad fish hooks and the millions of fishermen who continue to use them we think you will agree that Mustad fish hook MUST be superior. Ask your fishing supplies dealer. And—give Mustad fish hooks a trial.

**O. MUSTAD & SON,**
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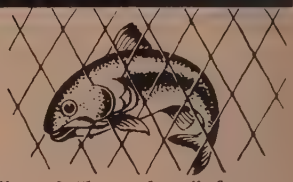
H. L. BOWLDS & SON
17070 Hamlin Road
Seattle 55

# MUSTAD
Key Brand FISH HOOKS

# ADAMS BEST NETTING

***Gives You Something Unbeatable!***



It gives you the benefits of "know-how" from way back . . . know-how that pays off in the efficiency and rugged durability of gear made from all types of Adams Best Netting.
Ask for ADAMS BEST Double Knot Nylon Salmon Gill Netting—Nylon Gill Netting—Cotton—Nylon Seine Netting—Seine Twines. Also, Dyak Netting and Seine Twine.

***Pacific Coast Distributors:***

A. D'Acquisto & Son
Box 670
Municipal Wharf
Monterey, Calif.

Nuttal-Styris Company
825 Columbia Street
San Diego 1, Calif.

Englund Marine Supply Company
Foot of 15th Street
Astoria, Oregon

Seaside Supply Stores, Inc.
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# BALLOT BIOLOGY—
## (Political Bandwagon Type)

● Ballot Biology is being tried in Oregon again this year—and this time with an out-and-out political angle.

Sportsmen are sponsoring an initiative measure to declare the Steelhead a sport fish and prohibit its catching commercially on the Columbia River.

Gillnetters and packers alike contend this would be tantamont to closing the Columbia to all commercial fishing—and that this is the actual purpose behind the initiative.

Washington already forbids commercial fishing for Steelhead, but fish taken in the nets of Washington fishermen can be legally sold in Oregon —and are.

The Oregon Fish Commission flatly and unanimously opposes the initiative proposal on the grounds that it would "result in tremendous wanton wastage of fish or complete abolition of commercial fishing in the Columbia River."

It contended further that the findings of its biological staff indicate that the runs of Steelhead in the Columbia are in good condition.

Wastage of fish under the measure would result because gillnets are relatively non-selective and inevitably catch Steelheads with salmon. Under the proposed law, retention of any Steelhead would be illegal, so those caught would be thrown overboard, whether dead or injured. Enforcement of the law against wastage of fish would in effect close the river to commercial fishing.

● The initiative, if its petitions are completed, would be voted upon at the general election in November.

Legal attack upon it is being made by the Columbia River Salmon and Tuna Packers Association, which will carry its case to the state supreme court if necessary.

The straight political turn taken by the current measure in Ballot Biology is a feature of the Democratic primary. The incumbent governor, seeking re-nomination, is on record in opposition to the initiative and in support of the commercial fishing industry's point of view. His principal opponent, on the other hand, is backing the sportsmen's proposal.

So now you have a new form of fishery initiative: Ballot Biology (*Political bandwagon type.*)

## Per Capita Fish Use On Dead Center

Per capita consumption of fish in the United States failed to register even a shadow of gain in 1957, according to data compiled by E. A. Power, Chief, Branch of Statistics, U. S. Bureau of Commercial Fisheries.

His data show per capita consumption of 10.2 lbs., exactly the same as in 1956. The only change is a rise in fresh and frozen from 5.7 lbs. in 1956 to 5.8 in 1957. This was exactly offset by a decrease in canned fish consumption from 3.9 to 3.8 lbs. Cured fish was rated at .6 lb. in each year.

## Japanese Booking Increased Frozen Salmon Orders

Orders for greatly increased quantities of Japanese frozen salmon for the European market are reported from Tokyo, where it is said trading firms are arranging refrigerated space on steamers leaving in June.

The 1957 frozen salmon sales by the Japanese to Europe are said to have totalled 700 tons, largely to the United Kingdom and West Germany. They consisted of dressed Chum, King, Red and Silver salmon to be used for smoking as well as for sawing into frozen steaks.

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Buy them from your favorite Marine Supply House or Ship Repair Yard when you haul out. Large west coast stocks, popular sizes. Factory stock to 11½-inch shaft size available overnight by air.

Tuna clipper "Mary Barbara", built by National Steel & Shipbuilding Corporation, San Diego, uses Cutless bearings.

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PROPELLER SHAFT

# LINES and LEADERS

**Henry J. Barbour,** veteran Fairbanks-Morse advertising and public relations expert, joins staff of Donahue & Coe, Chicago advertising agency.

## Henry J. Barbour to Join Donahue & Coe, Chicago

Henry J. Barbour, recently Manager of Advertising and Public Relations for Fairbanks, Morse & Co., will join Donahue & Coe's Chicago staff on June 1. He will serve as account supervisor and also as a specialist on trade, industrial, engineering and class media.

Mr. Barbour, who has been Manager of Advertising and Public Relations with Fairbanks, Morse & Co. for a number of years, joined that company in 1924 as advertising manager of their Dealer Division at their Beloit, Wisconsin works. In 1928 he was transferred to the Chicago headquarters where he became Manager of Public Relations. In 1954 he was promoted to Manager of Advertising and Public Relations.

## Kleer Marine-Tronics Distributes Kaar Instruments

Kleer Marine-Tronics, a division of Kleer-Tronics, Inc., 1933 Ocean ave., San Francisco, Calif., is the new distributor for Kaar Engineering Co., marine radio telephones, direction finders, and other electronics devices, for San Francisco and San Mateo counties.

Hank Bleile, general manager, has had many years of experience in the electronics business. The company has radio dispatched service trucks on the road, a completely equipped shop, and three skilled radio technicians.

The company owns its own 30-foot Hunter cruiser Lazy B., a floating showroom of Kaar equipment which is kept at the San Mateo Yacht Club.


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Mathers & Sperry Controls • Ideal Windlasses


## Columbian "Customized" Propellers Now Available Through Dealers

Dealer deliveries on new Columbian "Customized" Outboard Propellers for 50 hp. V-4 engines started April 1, and favorable reports from users are already being received, according to Leo Traeger, Divisional Sales Manager of Columbia Bronze Corporation of Freeport, L.I., New York.

Columbian manufacturers eleven types of 2, 3 and 4 blade propellers for the 50 hp., V-4 engines of Johnson and Evinrude. Available in aluminum alloy or bronze, they are especially designed to cover all service applications arising from the varying combinations of hull, hp. and load.

In addition, a series of seven "Customized" propeller types in aluminum alloy or bronze for the new 60 hp. Scott Atwater outboard engines is now in production.

The propellers for 50 hp. and 60 hp. outboard engines complement Columbian's previously introduced line of "Customized" Outboard Propellers which have met with wide acceptance of boat owners. Full information and literature may be secured from Columbian Bronze Corporation, Freeport, L. I., New York.

**New Type** 12-volt Exide Super Marine Battery is one example from the new line of 6- and 12-volt batteries for light commercial and pleasure craft introduced by Exide Industrial Division of The Electric Storage Battery Company, Philadelphia. The line of Super Marine and Standard Marine batteries includes popular sizes used for fishing craft and other marine power applications. Note that intercell connectors—usually exposed on other brands of batteries—are recessed in the top of the battery. The optional burned-on wing-nut terminals simplify connection of leads and eliminate corrosion originating at the terminals.


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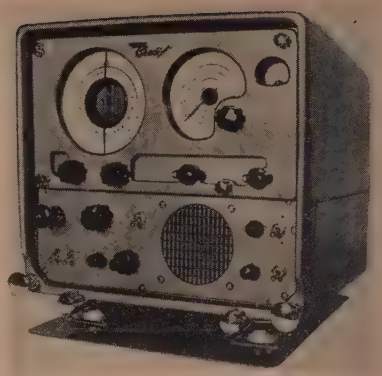

**Visual** direction finder by Bendix is pictured here. It shows the bearing on the cathode ray tube, upper left, as the radio compass station is tuned in.

## Bendix Automatic Visual DF Big Help to Fishermen

Bendix Marine has a brand-new automatic direction finder with a cathode-ray tube presentation. Certain advanced features make it expressly desirable to fishing boats. The Bendix visual ADF employs a non-rotating loop assembly permanently mounted to the boat. Signals collected by the loop are fed through a goniometer into a sensitive radio receiver whose output forms a bearing pattern on the picture tube. The rotating goniometer produces the same effect as though the loop were rotating. The bearing pattern is indicated on the screen of the small CR tube in the form of a narrow propeller design in the same relative bearing as the transmitting station is to the ship.

The Bendix Visual ADF has an operating range in the beacon band, from 200 to 600 kc; the broadcast band, from 600 to 1700 kc; and the marine band, 1.7 mc to 4 mc. The Bendix ADF requires a 110 volt 60 cycle AC power source, but can be obtained with Bendix Transistor Power Inverters for 12, 24, 32 and 110 volts dc operation.

Exhaustive tests of Bendix visual automatic direction finder have proved that it is an invaluable aid to fishermen when accurate bearings are to be taken in fog, and other conditions of obscure visibility.

## Marathon Executive Made Canco V.P.

Roy J. Sund, executive vice president of Marathon Corporation before its merger with American Can Company last December, has been elected a vice president of the can company, it was announced by William C. Stolk, president.

Since the merger, Mr. Sund has been in charge of the operations of the Marathon Division of American Can. He will combine this function with his new position as an officer of the company.


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## U. S. Rubber's New Plant To Serve Pacific N. W.

Continued population growth and industrial expansion in the Pacific Northwest have made it necessary for United States Rubber Co. to expand its distribution facilities in this area, H. E. Humphreys Jr., chairman of the company's board of directors, said at the formal opening of the company's new Seattle branch in February.

Mr. Humphreys predicted long-range business gains for the Pacific Northwest.

Located at 5900 First Ave. South, the new building is typical of the 25 new distributing branches constructed by the company since World War II.

Products will be distributed from the branch to Alaska, Washington, Idaho, northern Oregon and portions of Montana and Wyoming.

Branch operating manager is John A. Newell and credit manager, Lyle E. Thompson. District sales managers are Samuel A. Patton, U. S. Tires; Robert Perkins, footwear and general products, and L. F. Koepp, mechanical goods.

## Engines Suitable to Use Twin Disc's New Gear

A representative list of marine engines with ratings suitable for the recently announced Twin Disc MG-521 Marine Reverse and Reduction Gear has been compiled by Twin Disc Clutch Company, Racine, Wisconsin. These engines include:

Atlas 35 SX; Allis-Chalmers 6 DCBMR 1879; Allis-Chalmers 6DCSMR 1879; Allis-Chalmers 8 DCMR 2505; Caterpillar D353; Cummins VT-12; Cummins NVH-12; Cleveland Diesel 6-268-A; Enterprise DMM4; Fairbanks-Morse 38F5¼-4; IHC UD-1091-T; Murphy CBD 24; Waukesha NKD; Waukesha NKDS and Waukesha IRD.

The new Twin Disc MG-521 is rated for 450 horsepower continuous service at 1600 rpm and may be operated at speeds up to 1850 rpm. It is available with 2:1, 3:1 and 4:1 reduction ratios.

For further information on the MG-521 and other Twin Disc Marine Gears, write Twin Disc Clutch Company, Racine, Wisconsin.

## Western Waxide Promotes R. L. Appling on West Coast

Robert L. Appling, formerly resident manager of the Western-Waxide St. Louis plant, has been appointed assistant director of sales, Western-Waxide division of the Crown Zellerbach Corporation at its San Leandro, California, headquarters.

Mr. Appling is a graduate of the University of Kansas and the Harvard School of Business. He has been with Western-Waxide since 1949 and held several positions in production and management before becoming resident manager in St. Louis in 1953.

## Columbian Rope Brings Out Display Rack for Small Reels

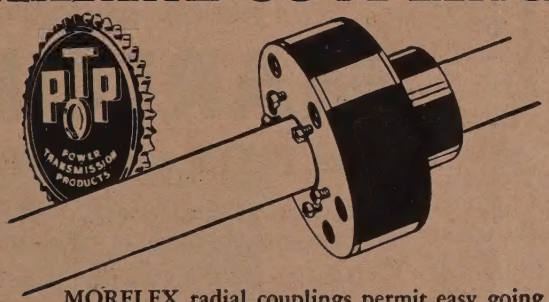
A brand-new display rack for small reels of nylon and polyethlene rope has just been introduced by the Columbian Rope Company, Auburn, N. Y., according to Earl Wilson, Sales Promotion Manager.

"The new display rack is constructed in such a way that it offers a more complete line of polyethylene rope in the popular sizes," Mr. Wilson stated. He added, "This rack holds three reels of ¼", ⅜", and ½" diameter, Columbian "Stabilized" Filament Nylon Rope or ¼" and ⅜" diameter, Columbian High-Tenacity Polyethylene Rope."

## New Norseman Catalog

Norseman Marine now has available a new 20 page catalog covering its complete line of marine engines. Free copies of this catalog may be obtained by writing Norseman Marine, 112 Nevada Street, Oshkosh, Wisconsin.


# MARINE COUPLINGS

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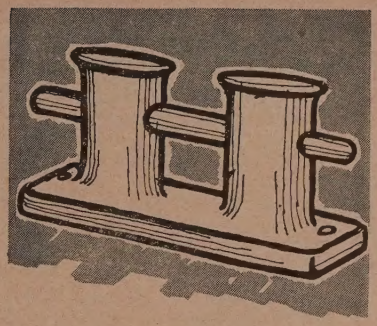

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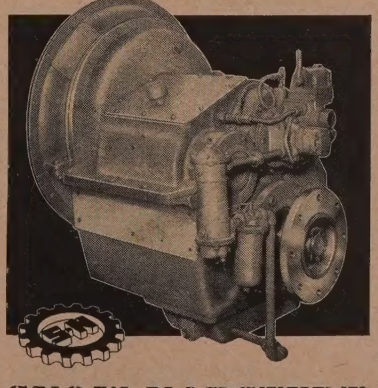

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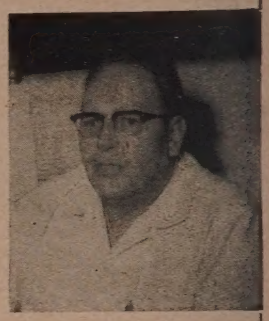

These are the words of Sam M. Snodgrass of Magic Valley Processing Company at Port Isabel, Texas, explaining why Shepherd Plastic Floats are used on all five of Magic Valley's vessels. Fishermen everywhere are finding the same qualities in Shepherd Floats—next time specify Shepherd floats and get these advantages for yourself.

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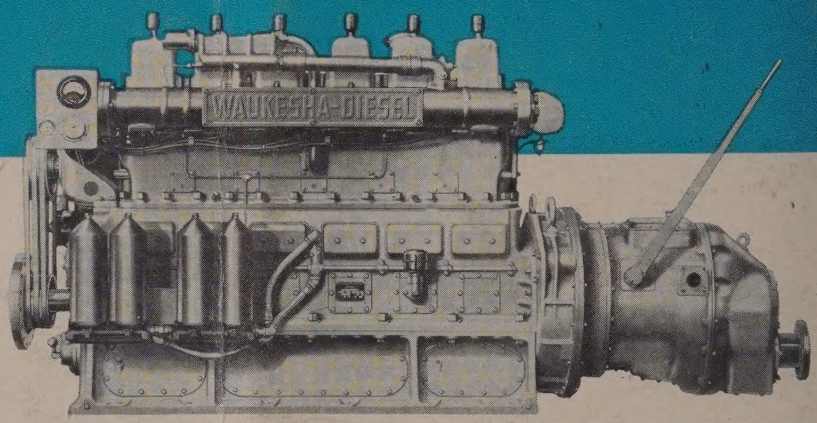


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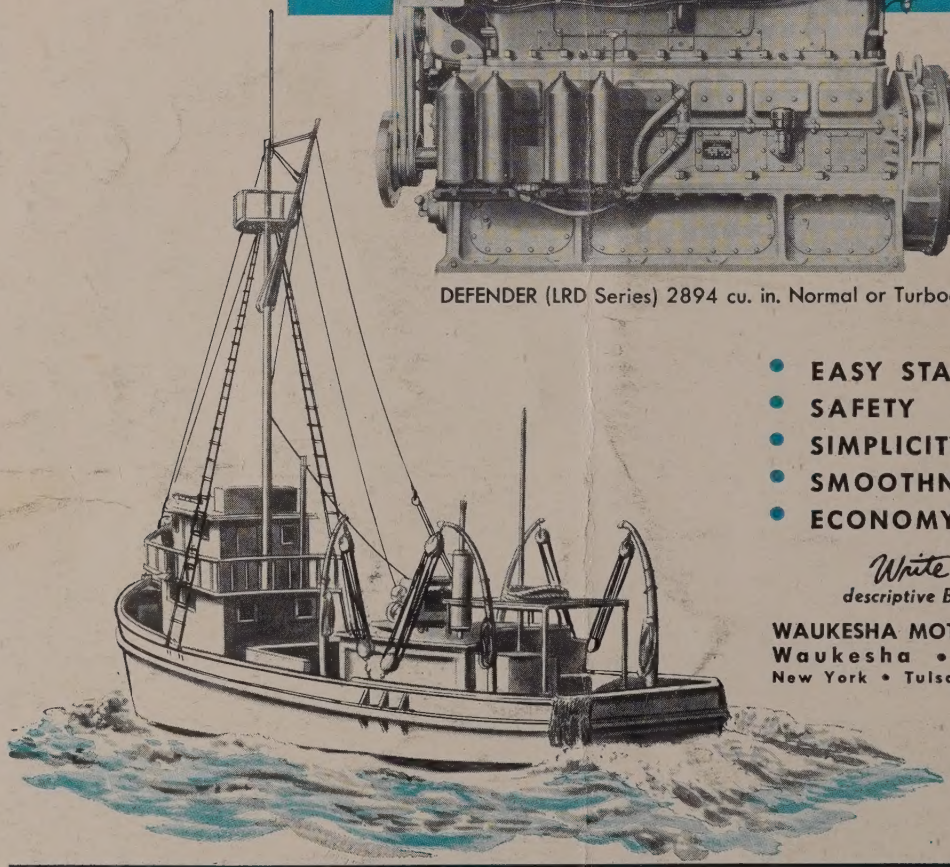

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|---|---|---|---|---|---|
| Reliance | Normal | 12 | 8½ x 8½ | 5788 | 665 horsepower @ 1200 rpm |
| | Turbo | 12 | 8½ x 8½ | 5788 | 990 horsepower @ 1200 rpm |
| Defender | Normal | 6 | 8½ x 8½ | 2894 | 335 horsepower @ 1200 rpm |
| | Turbo | 6 | 8½ x 8½ | 2894 | 555 horsepower @ 1200 rpm |
| Wanderer | Normal | 6 | 7 x 8¼ | 1905 | 240 horsepower @ 1200 rpm |
| | Turbo | 6 | 7 x 8¼ | 1905 | 315 horsepower @ 1200 rpm |
| Resolute | Normal | 6 | 6¼ x 6½ | 1197 | 195 horsepower @ 1600 rpm |
| | Turbo | 6 | 6¼ x 6½ | 1197 | 260 horsepower @ 1600 rpm |
| Vigilant | Normal | 6 | 5¼ x 6 | 779 | 150 horsepower @ 1800 rpm |
| | Turbo | 6 | 5¼ x 6 | 779 | 195 horsepower @ 1800 rpm |
| Cutwater | Normal | 6 | 4¼ x 5 | 426 | 100 horsepower @ 2000 rpm |
| | Turbo | 6 | 4¼ x 5 | 426 | 120 horsepower @ 2000 rpm |